

EVERY MAN
HIS OWN FARRIER;

CONTAINING THE
CAUSES, SYMPTOMS, AND MOST APPROVED METHODS
OF CURE FOR EVERY DISEASE

TO WHICH
THE HORSE IS LIABLE;

WITH A
VETERINARY PHARMACOPŒIA.

BY
FRANCIS CLATER,

AUTHOR OF
"EVERY MAN HIS OWN CATTLE-DOCTOR."

THE TWENTY-FIFTH EDITION,
WITH NUMEROUS ADDITIONS AND CORRECTIONS,
AND A PORTRAIT OF THE AUTHOR.

TO WHICH IS ADDED,
A PRACTICAL TREATISE
ON THE
MOST PREVALENT DISEASES OF DOGS.
BY F. CLATER AND SON.

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satisfaction of seeing it rise superior to all detracti^on; and can confidently aver, that if any person, who has the least skill in the practical part of farriery, will give strict attention to the symptoms which appear in the afflicted horse; and will further compare them with the rules and examples laid down in the following Treatise, he will, in a short time, be able to understand their different diseases: when, by carefully applying and administering such medicines as are prescribed for their cure, *with good drugs*, he will be enabled to effect his intention in the most obstinate diseases.

In its now improved state, the present Treatise contains the result of more than forty years' established and extensive practice in the veterinary art; and, as some account has been required of the means by which the author obtained his knowledge, he trusts the following concise statement will be favourably received by the indulgent reader.

The author was, in early life, apprenticed to a late eminent farrier,* with whom he afterwards continued for many years; and by whom he was not only entrusted with all the secrets of his

* Mr. Frost, of Nottingham.

profession, but was also instructed in the practical part of it. His subsequent practice has been carried on partly at Newark, and for the last twenty-six years at Retford, in the county of Nottingham, where his extensive concern as a chemist and druggist has afforded him great opportunity of making such improvement in the practice of farriery, as he trusts will give satisfaction to a candid public.

The plan of the present edition is to exhibit,

First, The nature and symptoms of every disorder to which that noble and useful animal, the horse, is subject.

Secondly, The best methods of cure.

Thirdly, A particular method of preparing and compounding the medicines, the extent of the several doses, and the *proper* management subsequent to administering them, together with the *proper* times necessary for giving the physic.

It may not be improper to caution the practitioner against using *bad drugs*. If he is accustomed to purchase his seeds and roots in a *powdered* state, he must reckon on being deceived; for, in general,

they are either prepared from bad or damaged articles, or are considerably adulterated. Besides, as seeds mostly contain a large portion of essential oil, if they are kept in a pulverized state, they will soon lose their volatile matter, in which their medical qualities chiefly reside.

Such is the design which the author has attempted to accomplish: with what success, the intelligent practitioner and a candid public will now decide. That the following pages are entirely free from deficiencies, is more, perhaps, than he is entitled to expect; but if, in its present improved state, it should again be honoured by a portion of that approbation which has been conferred on his former labours, he will be abundantly compensated for the time and attention which he has bestowed upon the present edition, in order to render it worthy of public acceptance.

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EVERY MAN

1850

HIS OWN FARRIER.

CHAP. I.

ON SHOEING.

THERE are few writers who have not offered their respective opinions on the shoeing of horses, and with various degrees of ability. The author of these sheets is free to confess, that he is by no means convinced that any individual can give such a regular systematical form as the *operative smith* can take for his guide, in order to suit all the differently-shaped feet, which necessarily occur among a number of horses. It is difficult to find even two whose feet are exactly alike in shape and make. The art of shoeing in such great perfection is not required so much in some parts of the country as in others: for instance, amongst the farmers, and in small market-towns, there is seldom any thing required out of the common practice. But in large cities or towns, where the

streets are paved with stone, all the skill of the shoeing-smith is necessary. In Nottingham, for instance, where the streets are frequently hilly, and also paved with stone, the horses' feet are severely tried. In one shop I have known from eight to ten men to be constantly employed in shoeing or making shoes, all or most of whom were clever at their business; yet all of these had different methods both of making and of putting on shoes. Of this circumstance the men were well apprized; and, as most of them were accustomed to make shoes every night and morning, although these were promiscuously thrown together, every man knew his own work. If, for instance, any one of them had shod a horse whose feet it was difficult to fit, and he in the course of eight or ten days had been obliged to be returned for alteration, these men, after examining the form of the foot and the shoe, could, in general, tell the person who had done the work. As all these men had different ways of working, they were thereby enabled to shoe some kinds of feet far better than others. Thus much I have endeavoured to show the impropriety of attempting to lay before the public a system that can never wholly be acted upon. A number of patent shoes, from different parts of the kingdom, have been received at the shop of the late Mr. Frost, at Nottingham, which have been

very neat, and well worthy of the attention or notice of the shoeing-smith; yet as a standing rule to work by, all the men in the shop have stated, that no such shoe could be formed, unless nature had formed all horses' feet alike. The author has been informed that machines are kept in town, which are worked by horses, for the purpose of manufacturing shoes of this kind: but it should be known that iron, formed into moulds for making of horse-shoes, when passed through the machine in a white heat, will not wear nearly so long as when forged with a hammer. All that can be said in favour of any particular method of shoeing will certainly fall short of its intended purpose. Men of talents, who have worked at the business for many years, and with whom the author has been acquainted, still conclude that there is abundant room left for improvement. It were unnecessary, perhaps, to offer much more on this subject, concerning which the working smith alone is qualified to judge: we shall, therefore, conclude our strictures by remarking, that as many horses have very tender feet, and some parts of the foot are more tender than others, it is the province of the operative artist to give ease to such parts, and to throw the weight more upon those parts which are better calculated to support it.

CHAP. II.

DIRECTIONS FOR THE MANAGEMENT OF
HORSES.

THE proper method of treating horses depends wholly on the use for which they may be kept. Such as are kept by the farmer for husbandry seldom require bleeding or purging, except in cases which evidently demand those operations. The racer, hunter, and hack, require the particular care and attention of the groom in their management; as some of them are not able to stand full feeding until they are properly cleansed with physic. Bleeding should be avoided, except in those cases where there is a tendency towards inflammation. It would be foreign to the plan of this work to offer any remarks on the subject of feeding and the management of horses. Their food consists chiefly of grain and herbage, which, if good in quality, and dispensed with judgment (not omitting proper exercise and dressing), will secure him from those complicated disorders to which he is liable by improper treatment. -

CHAP. III.

INFLAMMATION.

INFLAMMATION is more or less present in most of the diseases to which the horse is subject, and therefore a few general observations may not be inapplicable here, and will, I trust, impress the reader with the importance of attending to it in the treatment of diseases. I shall first speak of external inflammation, which is known to have taken place by the part being swollen and tense; by increased sensibility and an increased heat in the spot; and when the parts covering the inflamed vessels are thin and more transparent, redness is also perceptible, as in inflammation of the eyes, nose, &c. These are then the marks which distinguish external inflammation. In strains, wounds, bruises, and other local affections treated of in this book, the injured parts sooner or later become tumefied, tense, feel hotter than usual, and the animal flinches when the fingers are pressed upon it. These symptoms indicate the presence of inflammation in any part of the body, and induced by whatever cause it may. The tumefaction is partly owing to an increased quantity of blood in

the vessels of the inflamed part, from their enlarged capacity, which is very evident when the eye is inflamed. The vessels that before only admitted the almost colourless part of the blood to enter, are now seen to allow the red particles of the blood to flow through them. (See Inflammation of the Eyes.) The swelling of inflammation is also owing to an effusion of coagulable lymph from the inflamed vessels into the contiguous cellular texture; and after the inflammation has existed some time, new vessels are formed in the part. The other marks of inflammation are increased sensibility and heat. The pain arises in consequence of the injury the nerves have suffered, by which they are labouring under excitement, or increased and morbid action. It also arises from the small filaments of the nerves being distended, from the dilated state of the arteries and other parts. The increased heat depends upon the greater quantity of blood contained in the blood-vessels of the inflamed part, and the increased excitement of the nerves acting upon the constituent parts of that blood, by which more heat is evolved than usual, and consequently the blood here more rarefied.

High feeding, and want of exercise, as when a horse is removed at once from grass or the straw-yard to a hot stable, will make him liable to local

inflammations, as inflammation of the eyes, lungs, swelled legs or grease. Unequal and long-continued pressure of the saddle will cause an inflammation of the withers; and if the swelling is not dispersed by topical applications it will probably terminate in a fistulous ulcer.

Bones have not much sensibility, except when inflamed; in which case the inflammation frequently gives rise to an increased deposit of bony matter, and forms bone spavin, ring-bone, splints or curb. The blistering essence effects a cure in them, by stimulating the absorbent vessels of the part to take up these superfluous bony excrescences. The sinews, or tendinous extremities of the muscles, and the ligaments, are insensible, except they become inflamed, which is the case in strains of all kinds, and rupture of the suspensory ligaments, commonly called *breaking down*: topical applications, rest, and bleeding, are the chief remedies recommended under the section of strains; in *breaking down*, the heels must be elevated to relax the inflamed part; and this must also be attended to in strains of the back sinews, sometimes called *clap in the back sinews*.

Inflammation is frequently a salutary process of nature, to re-produce and restore parts to their

natural state ; as when inflammation does not terminate in re-solution, the inflamed part suppurates, or matter is formed, and the wound could not granulate or fill up if inflammation did not come on ; and we favour this by stimulating applications. In poll-evil we often pour them almost boiling hot into the abscess, with the best effect. Inflammation is necessary to remove extraneous substances from any part of the body that cannot be conveniently taken away by other means, as splinter of stakes, briars, balls, dead pieces of bone, &c. Strangles also appears to be a salutary effect of nature to relieve the constitution ; with this supposition we favour her designs by the remedies recommended in that disease.

Inflammation may be divided into *common* and *specific*. By common we mean what has been already described. Specific is one totally of a different kind. This is illustrated in glanders, farcy, grease, and inflammation of the eyes. The blood in these diseases is under a peculiar morbid influence, or specific action ; for instance, the inflammation of glanders differs from common inflammation, because the secretion of mucus from the nose is not only increased, but altered in its quality, and capable of producing a disease similar to itself by inoculation of the matter, drinking from the same pail of water, transfusing the blood from a

glandered horse into a healthy one, and other means. Now the increased discharge from the nose in catarrh would not produce a disease analogous to itself, and would have no effect whatever, because the discharge in catarrh is the result of *common not specific inflammation*, affecting the mucous membrane of the nose. The discharge from greasy-heeled horses will excite a peculiar inflammation in the human subject, called cow-pox.

Inflammation may have different terminations, as re-solution, suppuration, and gangrene, or mortification. The inflammation is said to have terminated in re-solution, when the swelling subsides, the heat and pain gradually go off, and the parts return to their former healthy condition. By suppuration, is meant that inflammation which proceeds to the formation of matter. Mortification and gangrene are synonymous terms, both meaning the death of a part, whilst the surrounding parts remain alive. This state is preceded by a high degree of inflammation, that takes place in very severe bruises, and extensive lacerated wounds, which is apt to terminate in gangrene: there is an ichorous and offensive discharge from the mortified part, and the constitution frequently suffers much in the progress of this disease: the pulse is quick and hard before mortification: and when this has taken place it is quick and soft.

The treatment of inflammation is either local or constitutional. The topical remedies recommended in various parts of this book are alone sufficient to effect a cure by re-resolution, if timely employed, and the inflammation from the strain, contusion, wound, or other cause, is not violent. Should there be a splinter of wood, or any extraneous body in a wound, we must remove it as soon as possible; and in curing strains of all kinds, rest is absolutely requisite. A cure by re-resolution may be expected if the swelling decreases, and the heat and pain abate. If the inflammation runs high, and the constitution becomes affected, we have recourse not only to local, but constitutional means to resolve it; the first of which is *bleeding* from the neck or jugular vein, to the quantity of three to six quarts, according to circumstances. An ounce of nitre should be given to the horse once a day while in this state. Diuretic balls are also beneficial. A pint, or a pint and a half, of castor oil should be given once or twice during the violence of the inflammation, or a mild aloetic purge. If the symptoms of inflammation are not so severe, topical bleeding is frequently necessary; as opening a vein as near the part affected as you can, and taking two or three quarts of blood away, which, with the other remedies employed, subdues the inflammation, and prevents matter forming. When the part affected lies rather deep,

as in the joints, windgalls, bog-spavin, and others, we employ the blistering essence (No. 133), or less stimulating mixtures, to excite an inflammation externally, and by this means remove the internal.

Those inflammatory tumours which sometimes appear in fevers, ought to be brought to a state of suppuration by the means stated in the section on tumours.

If, notwithstanding the use of the most active means to resolve inflammation, the different symptoms rather increase, and particularly when the tumour grows larger, we may expect that matter will form, and should therefore desist from cooling and depleting remedies, and apply stimulating applications, as stimulating ointments, or liniments, warm fomentations, and poultices, to assist nature in the formation of matter. When matter is fully formed, it is contained in a cyst of coagulable lymph, and is called an abscess; we frequently give vent to the matter by opening it with a lancet or pen-knife. (See Tumours.)

When mortification has taken place, apply to the part oil of turpentine hot, or some of the oils under the section of Wounds, and strengthen the

constitution by giving the following to the horse two or three times a day in a pint of warm ale :

Peruvian bark, one ounce ;
Ginger, half an ounce ;
Opium, half a drachm.

(See further on this subject in the chapters on Wounds and Bruises.)

Internal Inflammation.

If inflammation attack any principal organ, as the head, lungs, intestines, or other internal and important parts, it disturbs and injures their functions, increases the action of the heart and arteries, constituting what is called symptomatic fever, and the disease is accompanied with different symptoms, according to the seat of the inflammation. Thus, in inflammation of the lungs, there are symptoms of fever present, with difficulty of breathing, and the horse continually standing. In inflammation of the bowels there is fever, the horse lying down and rising again suddenly, with other signs expressive of the part affected. When the brain or its membranes are affected with inflammation, as in mad staggers, the horse appears dull, stupid, and drowsy ; and as the disease advances, he becomes raging ; with other symptoms indicating the head is the part affected. If in-

inflammation attack the mucous membrane of the nose, intestines, and other parts, we have an increased secretion of mucus, as in catarrhs, glanders, molten grease, &c.; but there is an exception to this, when inflammation seizes the mucous membrane of the wind-pipe; for, instead of an increased secretion of mucus, there is an effusion of coagulable lymph that divides the wind-pipe into two spaces, and constitutes the disease termed *roaring*, which is frequently the case when symptoms run high, and the disease is injudiciously treated.

The most active means are employed to remove internal inflammation, such as *bleeding*, *rowelling*, *blistering*, *purgatives*, *the actual cautery*, *nitre one ounce*, with a *drachm of tartarized antimony*; but the chief of these is *bleeding*; and the quantity to be taken away depends upon the urgency of the symptoms, the age, and constitution, of the animal.

CHAP. IV.

ON BLEEDING.

BLEEDING is often the most useful and efficacious means we possess of curing diseases. In inflammatory affections, it is generally the first remedy we resort to, and its immediate salutary effects often surprise us.

In spasmodic diseases it is frequently not less beneficial; as cholic, convulsions, strangury, or difficulty of voiding urine, and others.

When it is necessary to deplete the whole system, we generally open the jugular or neck vein. If the inflammatory action is local, we deplete where it can conveniently be done, either from the part affected, or in its vicinity; as by opening the plate vein, superficial vein of the thigh, temporal arteries, scarifying the vessels of the white of the eye, and sometimes the vein at the toe: small quantities may also be taken from the palate and other parts. We frequently combine general and topical blood-letting at the same time; as in inflammation of the eyes, &c.

In fevers of all kinds, and when inflammation attacks any important organ, as the brain; eyes, lungs, stomach, intestines, liver, kidneys, bladder, &c. bleeding is of the greatest use. It diminishes the quantity of blood in the body; and by this means lessens nervous actions, weakens the action of the heart and arteries, and prevents the bad consequences of inflammation; as effusion of serum, adhesions, suppuration, gangrene, or mortification. In these cases we must act with the greatest promptitude to subdue the inflammatory action. The quantity of blood to be taken varies according to the age, size, condition, and constitution of the horse, and urgency of the symptoms. From a large strong horse, four to six quarts will generally be requisite to be abstracted, and this may be repeated in smaller quantities if the symptoms demand it. The blood, in these diseases, must flow from a large orifice made in the vein, as sudden depletion allays more powerfully the morbid action. A horse should *never be suffered to bleed upon the ground, but into a measure*, in order that the proper quantity may be taken. There are many other inflammatory affections in which bleeding is often very useful in promoting a cure, where the life of the animal is not in such imminent danger, or the parts so important, viz. in catarrhs or colds, falls, bruises, severe wounds, and strains from over-

exertion. Young horses, also, while shedding their teeth, have sometimes much constitutional irritation, which bleeding relieves. But in these affections it is very rarely necessary to bleed to the same extent as in fevers, &c.; two or three quarts generally suffice to be taken away. In many instances we do not bleed at all, but have recourse to other remedies, to be mentioned hereafter. We are regulated in this respect by the symptoms.

Moderate bleeding, as from two to three or four quarts, is also used to remove fulness of habit, or plethora, attended with slight inflammatory symptoms. A certain quantity of blood is absolutely necessary to support and nourish the body. When this quantity is defective, the body becomes weak and emaciated; but if too abundant, the functions of the body are oppressed and imperfectly performed; the eyes appear heavy, dull, red or inflamed, frequently closed as if asleep; the pulse small, and oppressed; the heat of the body somewhat increased; his legs swell; he also rubs off his hair. Horses that are removed from grass to a warm stable, and full fed on hay and corn, and not sufficiently exercised, are very subject to one or more of these symptoms. I, by no means, in cases of plethora or fulness of habit, recommend frequent bleedings, as it would rather induce a

plethoric state than remove it. Regulating the quantity of food given to him, proper exercise, and occasional laxatives, as the following powders, will be commonly found sufficient after the first bleeding, and operation of the aloetic purge. In slight affections of this kind, a brisk purge will often alone be sufficient. (See Purging.)

(RECIPE, No. 1.)

TAKE—Crocus of antimony, finely levigated:

Nitre, cream of tartar, and flour of sulphur, of each four ounces:

Powder and mix them well together for use.

One table-spoonful of these powders may be given every night and morning, in a mash of scalded bran, or a feed of corn moistened with water, that the powders may adhere thereto.

These powders will be found excellent for such horses as are kept on dry meat, whether they be in the stable, or travel on the road; also for stallions in the spring of the year, as they not only keep the body cool and open, but cause him to cast his coat; and make his skin appear as bright as silk.

Bleeding is likewise employed, to restore the

balance of the circulation when there is an irregular distribution of it to any important organ, without actual inflammation being present, as to the brain, stomach, intestines, &c.; and which congestion of blood impairs the healthful functions of the part, causing apoplexy or staggers, convulsions, spasms, palsy or colic. If these diseases are not checked at the commencement, they are very liable to run into inflammation. In some instances it is necessary to abstract a large quantity of blood. (See these Diseases.)

CHAP. V.

ON PURGING.

THOSE medicines are called purging, which, when administered in sufficient quantity, increase the evacuation of fæces from the bowels. They are of great utility in the cure and prevention of diseases; a knowledge, therefore, of their nature and use is of the first importance. Purges for the most part act by exciting the peristaltic motion of the intestines, and increasing the secretion of the exhalent arteries and mucous follicles situated in their villous or internal coat. They change the course of the blood, causing an increased momentum of it towards the bowels; and the capacity of

their arteries becoming augmented, the secretion of fluids into the intestines is increased. . . .

Mild cathartics operate merely by emptying the contents of the bowels; brisk cathartics affect more or less the whole system.

In fevers, and inflammations attended with symptomatic fever, the fæces, from the beginning to the termination of the disease, must not be permitted to accumulate in the bowels, lest they aggravate the symptoms. But in these diseases mild purgatives will be found ordered to bring off their contents, such as castor oil, or olive oil combined with Epsom or Glauber salts; aloes and calomel in reduced doses. (See Fevers and Inflammations.)

In those cases of fulness of habit which require bleeding (see Bleeding), a purging ball may be given the second or third morning following, the horse being prepared by bran mashes. Here cathartics aid very much the bleeding, in restoring the healthful functions of the body, by its assisting in evacuating the system, and in cooling and refreshing the body. In slight cases of this kind, a brisk purge will frequently alone suffice to remove this fulness of the system. .

In obstinate grease and swellings of the legs, accompanied with lameness of the joints, dry coughs, worms, diseases of the skin, farcy, apoplexy or staggers, affections of the liver, and several other diseases treated of in this book, mercurial purges are of the greatest service. They purge; destroy worms; generally increase the flow of urine; operate upon the skin, liver, and other viscera of the abdomen in a peculiar manner; cause an healthful action in these parts; and remove many chronic complaints incident to the horse. Great caution is necessary during their operation, lest the horse take cold. The water you give him must be warm, and when exercised he should be properly clothed.

Horses that are kept on dry meat, and are full fed, with little or no exercise, require regular purging every six months, with two or three doses each time, allowing proper intervals between each; and those horses which run in stage-coaches or chaises (whose labour is often more than their natural strength is able to bear), and such whose legs are inclined to swell,—all require purgative medicines; the use of which would be a means of preventing many of the diseases that attack this noble and useful animal.

After violent exercise, horses are liable to lose their appetite, and to have their stomach loaded with crudities and indigested matter; the non-removal of which, by the use of proper physic, is the chief cause why so many die daily. Previously to administering a purge, the body should be prepared; otherwise the consequences may be fatal, from the powerful irritation, excessive griping, and cold sweats, which may probably chafe away the mucus, or lining of the intestines, and end in a mortification and death.

The proper method of preparing a horse for physic is, to give him two or three mashes of scalded bran and oats, and warm water, for three or four days together. This will soften the faeces, and promote the operation of the medicine. But if a strong purge be given to a horse of a costive habit, without preparation, it will probably occasion a violent inflammation. This may be attributed to the large tract of intestines (upwards of thirty yards) through which it has to pass; and the time that physic takes in passing through the bowels is seldom less than twenty-four hours. If the above directions for preparing the horse for physic be strictly observed, there will seldom any danger ensue.

(RECIPE, No. 2.)

Purging Ball.

TAKE—Barbadoes aloes, six drachms;
Ginger, in Powder, two drachms;
Castile soap, two drachms;
Essential oil of aniseeds, twenty drops:
Mix, and make them into a ball, with a sufficient quantity of syrup of buckthorn.

(RECIPE, No. 3.)

Purging Ball.

TAKE—Barbadoes aloes, eight drachms;
Ginger, or aromatic powder, two drachms;
Castile soap, two drachms;
Essential oil of caraways, twenty drops:
Syrup of buckthorn, sufficient quantity to form a ball.

(RECIPE, No. 4.)

Purging Ball.

TAKE—Socotrine aloes, eight drachms;
Castile soap eight drachms;
Essential oil of Junipers, forty drops:
Mix, and make into a ball.

This form is much esteemed by some, as operating with great safety.

The ball (No. 3) will be found of a sufficient strength for a common-sized hackney.

(RECIPE, No. 5.)

Purging Ball, with tartarised antimony and calomel.

TAKE—Tartarised antimony, one drachm ;
Calomel, half a drachm to two scruples ;
Ginger, in powder, two drachms ;
Castile soap, two drachms :
Mix, and make into a ball, with syrup or
honey.

This ball to be given at night, and the purge
(No. 2, p. 22) next morning.

These will be found well adapted for coach-horses, or others, that have swelled legs or heels attended with inflammation. This dose is calculated for a moderately-sized horse, and may be diminished or increased by lessening or augmenting the quantity of aloes in the aloetic ball.

All these purging balls should be given early in the morning, on an empty stomach : in two hours after give your horse a feed of scalded bran, new-milk-warm, or rather warmer, and a little good hay at a time, and often ; also two more mashings the same day. If, however, he refuses them, give him dry bran, with a handful of oats mixed with it. Take care the water you give him be new-milk-warm. Early the next morning give another

mash, and plenty of warm water : clothe him, and ride him gently about, two or three times in the course of the day. If the physic works too much, give him less water and less exercise ; if too little, give him more exercise, and as much warm water as he will drink : at night, when the physic has ceased to operate, give him a good feed of oats, with a little dry bran. While the physic is working, the horse should on no account be suffered to go out in the rain or wet, but should be gently walked about in a dry and clean place ; and warm water should also be given him (if he will drink it), for two or three days after his physic has done working.

The following aloetic mercurial ball is an excellent form for a race-horse, hunter, or a hackney, where a brisk purge is required, or worms suspected.

(RECIPE, No. 6.)

Purging Ball, with aloes and calomel.

TAKE—Barbadocs aloes, six drachms ;
Calomel, half a drachm to two scruples ;
Aromatic powder, or ginger in powder, two drachms ;
Castile soap, two drachms ;
Essential oil of aniseeds, twenty drops :
Syrup, or honey, sufficient to form a ball.

For a strong hunter, hackney, coach, or waggon-horse, the aloes may be increased from seven to eight drachms, according to size and strength. When calomel enters into the composition of balls, you must never add prepared kali to them.

By adding a small quantity of prepared kali, or subcarbonate of potass, to aloetic purges, the griping quality of the aloes will be taken away, and they will be rendered milder, and may be given with this addition where mild purgatives are indicated. When administered in large doses, I have known some horses to take from sixteen to eighteen drachms of good Barbadoes aloes to purge them, with the addition of about a drachm of prepared kali, without the least danger. Whenever it is found necessary to give a *very strong* dose of physic to a horse, I should advise part of it to be given at night, and the remainder on the following morning. *No aloes* can be depended on as physic for horses, except those of *Barbadoes* (all others are too liable to be adulterated). They are imported from that island in large gourd shells; and, when broken, are of a darkish liver colour, and of a rank offensive smell.

Mercurial physic is proper in all stubborn diseases: such as the farcy, lameness of the joints,

greasy heels, and in all kinds of eruptions, and other complaints, as mentioned above.

(RECIPE, No. 7.)

Mercurial Ball.

TAKE — Calomel, one to two drachms (according to the size and strength of the constitution);
Barbadoes aloes, ginger, and Castile soap, of each two drachms:
Make them into a ball, with syrup of buckthorn, or honey.

This should be given at night, and the purge (No. 2, p. 22) next morning.

No horse should be physicked oftener than every six days, or once a week, and that not more than for three times. Some horses are subject to over-purge, either through too large a dose being given, or from the horse taking cold while in physic: in either case, the following cordial drink will check the purging, and dispel the griping pains usually incident in this case.

(RECIPE, No. 8.)

A Drink to check over-purging.

TAKE — Prepared chalk, ginger, and aniseeds, in powder, of each one ounce;
Essential oil of peppermint, fifteen drops;
Rectified spirits of wine, half an ounce:
Mix the whole in a pint and a half of warm linseed gruel, and give it, or the following:

(RECIPE, No. 9.)

TAKE—Prepared chalk, one ounce :

Compound powder of ipecacuanha, two drachms ;

Tincture of opium, two drachms ;

Ginger, in powder, half an ounce :

Mix, and give it in a pint and a half of warm gruel.

Either of these drinks will be found powerful in checking the progress of the purging. The drink (No. 9) acts more powerfully in allaying the irritability of the intestines, from its containing opium, and may be given after the drink (No. 8), if that is not sufficient to check the over-purging. Either of them may be repeated once or twice a day, if occasion require it. Sometimes this irritation of the bowels ends in inflammation, which is known by severe and continued pain, small and hard pulse, coldness of the extremities ; in these cases it will be proper to take two or three quarts of blood from the horse, but not without symptoms be urgent. When physic is given without due preparation, the horse frequently swells, and the consequence may be productive of great danger. In such cases give the following diuretic drink.

(RECIPE, No. 10.)

Diuretic Drink.

TAKE—Yellow resin, two ounces ;
Prepared kali, half an ounce ;
Oil of junipers, three drachms ;
Caraway seeds, in powder, one ounce ;
Ginger, in powder, one ounce ;
Mix and give in a pint and a half of
warm gruel.

If this does not relieve the horse in about two hours, give him the following.

(RECIPE, No. 11.)

Purgative Drink.

TAKE—Castor oil, one pound or pint ;
Soap liniment, one ounce :
To be mixed in a pint of gruel and given.

Let the horse be walked about in hand, and sometimes trotted for fifteen or twenty minutes ; and if some evacuation in that time is not obtained, recourse must be had to the following cooling and opening clyster.

(RECIPE, No. 12.)

Clyster.

TAKE—Warm water, four quarts;
Glauber's salts, four ounces;
Treacle, four ounces;
Sweet oil, half a pint:
Dissolve the salts and treacle in warm water,
then add to them the oil.

Before the clyster is given, a small hand should be dipped in or rubbed with the same, and passed up his fundament, to bring away the hardened dung, which is frequently the chief cause of his swelling. The clyster should be administered with a pipe ten or twelve inches long, and a strong bladder fixed at one end thereof; the liquid to be forced through the pipe, by twisting the bladder with your hands. As soon as the horse has received it, take away the pipe, and immediately put a wisp of straw to the horse's fundament, holding it there with the tail for the space of ten minutes. These rules should be observed in administering all clysters; and the pipe here mentioned is much better than a syringe, because the latter will make the horse start and cause him to eject the clyster immediately. Before the present chapter is concluded, it will be necessary to propose a useful drink for a race-horse, or a hunter, after a hard day's fatigue.

(RECIPE, No. 13.)

Purging Drink.

TAKE—The best senna, two ounces; just give it a boil in a quart of water, and then let it infuse for two hours in a pot close covered down. Strain it off; and add,
Glauber's salts, four ounces;
Barbadoes aloes, three drachms;
Prepared kali, half an ounce;
Aromatic powder, two drachms: to be given new-milk-warm.

This drink may be given as soon as the horse has cooled a little, after which let him fast one hour, then give him a mash of scalded bran and oats, and warm water. If the drink be given at night, it in general begins to operate the next morning. This drink is of excellent service in all kinds of inflammatory disorders, and in carrying off the molten grease after violent exercise, which often causes great heat, restlessness, and inward sickness.

CHAP. VI.

THE WINDY, OR FLATULENT COLIC.

THE windy, or flatulent colic, is in general produced by the horse eating greedily of some succulent food, as fresh clover, different grasses, new hay, or new corn; obstinate costiveness; eating too much immediately after great fatigue; perspiration suddenly checked from imprudent exposure to cold and wet, and sometimes from drinking cold water when heated. It may be occasioned by any one of these, impairing the healthful functions of the intestines, causing a painful distention and contraction of one or more parts of them, and is indicated by the following *symptoms*.

The horse often lies down, and suddenly rises again with a spring; strikes his belly with his hind-feet, stamps with his fore-feet, and refuses every kind of food. When this disorder is violent, it throws his body into convulsive motions; his eyes are turned up, and his limbs stretched out as if dying; his ears and feet are sometimes hot and sometimes cold; he falls into profuse sweats, succeeded by cold shivering fits: he often strives to stale, but without effect, and often turns his head towards his flank,

sensible of the part where the pain lies ; he then falls down suddenly, rolls himself over, and often turns on his back. The pulse is not materially affected, and the extremities commonly retain their natural heat. The following treatment rarely fails to give relief in this disorder.

(RECIPE, No. 14.)

TAKE—Oil of turpentine, sweet spirits of nitre, oil of junipers, and tincture of opium, of each half an ounce ; mix in a phial ;
Caraway seeds, in powder, one ounce ;
Ginger, in powder, one ounce ;
Mix in a pint of peppermint water made warm, and lastly add the liquid in the phial, and give the whole immediately.

If the horse is no better within two hours after, repeat the drink as before (No. 14), and take four quarts of blood from him, which will obviate the tendency to inflammation, and assist in relieving the spasm or morbid action of the bowels. If he should remain restless or uneasy, in two hours after the bleeding, give him the following drink and clyster.

(RECIPE, No. 15.)

TAKE—Castor oil, one pound ;
Prepared kali, half an ounce ;
Ginger, one ounce :
Mix in a pint of warm gruel, and give it immediately.

(RECIPE, No. 16.)

TAKE—Linseed, four ounces; boil it in five quarts of water until it is reduced to four; let it stand ten minutes, then pour off the clear liquid, and dissolve therein four ounces of Glauber's salts, half a pound of treacle, and one handful of common salt.

It must here be repeated, that before any clyster is administered a small hand should be well rubbed with it, and then be passed up the horse's fundament or anus, in order to bring away the hardened fæces, which otherwise would obstruct the passage of the clyster. This will, in most cases, have the desired effect.

CHAP. VII.

THE INFLAMMATORY COLIC, OR INFLAMMATION
OF THE INTESTINES.

THIS kind of colic, or gripes, is by many, with great propriety, called inflammation of the bowels; and though it may commonly be said to be a continuation of the former, only assuming a more dangerous aspect, yet in many cases it exists as a primary disease. An inflammation commences in some part of the intestines; and if speedy means are not employed to subdue it, the

consequence will probably prove fatal. This disorder is attended with a fever; great heat and dryness of the mouth; tongue white; skin hot and dry, except the extremities and ears, which are mostly cold; loss of appetite; continued pain of the belly, and increased by pressure with the hand; the horse lies down, and rises again suddenly, but does not often roll on his back; pulse quick, small, and hard, generally becoming fuller and softer after bleeding; breathing short and somewhat quicker than natural, with heaving in the flanks.

This disease, though generally arising from colic, frequently, as I have said before, exists as a primary affection: as from sudden exposure to cold and wet; long-continued costiveness; wounds and severe contusions of the abdomen; change of diet and want of exercise, as when horses are taken up from grass, to the stable; succeeding inflammatory fever; inflammation also of the bowels from physicking (see Purging), and some others.

The inflammatory colic may be distinguished by the pulse being quick, small, and hard; symptoms of fever always present; constant pain, and increased on pressure; extremities and ears for the most part cold; rarely rolls upon his

back. In flatulent colic, the pulse is not much affected, except, perhaps, a little quicker than usual; symptoms of fever rarely occur; short intervals of ease, and the pain not increased by pressure; extremities and ears commonly retain their natural warmth; also frequently rolls upon his back.

If the severe pain and other bad symptoms gradually yield to the remedies employed, the pulse becomes fuller and softer, the bowels acted upon by the purgatives used, the heat of the body diminished, and the extremities and ears gain their natural warmth, a favourable termination may be expected. On the contrary, if the pain suddenly remits, the pulse quick and almost imperceptible, bowels not acted upon by purgatives, or he voids bits of dung with a dark fetid liquor, partial sweats break out, the intestines are in a gangrenous state, and death soon takes place.

When we are persuaded that inflammation has attacked the intestines, we must *immediately* resort to the most efficacious means of cure; and I am satisfied, from long experience, that *no remedy surpasses copious bleeding*.

If the horse is young, strong, and in good con-

dition, five or six quarts of blood must be taken from a large orifice of the vein, and repeated in three or four hours after, if symptoms continue urgent, but to the extent only of three or four quarts; a third, fourth, or fifth bleeding is sometimes necessary in obstinate cases, though in less quantity, as two or three pints each time. If you put your finger on the pulse (see Pulse) during the bleeding, you will frequently perceive it become softer and fuller, which is a convincing proof of the good effect of the bleeding.

After the first bleeding, give the clyster (No. 12, p. 29), previously, as mentioned there, introducing the hand to bring away the hardened fæces, which are frequently collected in great quantities, causing extreme irritation and difficulty in making water. You may repeat the clyster two or three times a day. As soon as the clyster is administered, give him the following drink.

(RECIPE, No. 17.)

Drink.

TAKE—Castor oil, one pound and a half;
Tincture of opium, half an ounce;
Warm gruel, one quart:
Mix, and give as soon as possible.

The above clyster and drink (I have no doubt) will succeed in effecting a passage through the intestines. If they should not have the desired effect in the course of twelve hours, it will be necessary to repeat them.

The blistering essence (No. 133) may be well rubbed over the belly to excite a counteraction, which will assist in diminishing and removing the inflammation of the bowels.

When the horse begins to recover, the febrile heat abates, and the appetite returns, the following mildly laxative and restorative drink may be given with great advantage.

(RECIPE, No. 18.)

Restorative Drink.

TAKE—Peruvian bark, and nitre, of each one ounce ;
Lenitive electuary, four ounces ;
Ginger, aniseeds, caraway seeds, and Castile soap, of each half an ounce ;
Tincture of opium, two drachms ;
Warm gruel, one quart :
Dissolve the ingredients in the gruel, and give it new-milk-warm.

This drink may be given every morning fasting, or every other morning, as may be judged necessary : or the restorative balls (Recipe, No. 193) may be given if balls are preferred.

CHAP. VIII.

THE DRY GRIPES, OR COLIC.

THIS disorder, like the former, is often very distressing to the horse, and is attended with imminent danger. It is first discovered by the horse's frequent motion in straining to dung; the rectum appears to be loaded, and visibly pressed to the fundament, which brings on a constant straining to expel the fæces. This is first perceived by the frequent and quick motion of the horse's tail; and by his often endeavouring to stale, but he can only do it in small quantities, which is occasioned by a load of dung pressing on the neck of the bladder. The dry colic, or gripes, seldom requires any other assistance than a clyster (see No. 12, p. 29, or No. 16, p. 33) after a small hand has been dipped therein, and passed up the fundament, to bring away the hardened dung that is lodged in the great gut. Or, instead of the afore-mentioned clysters, the following may be used.

(RECIPE, No. 19.)

Purgative Clyster.

TAKE—Warm gruel, four quarts;
Then dissolve one handful of common salt,
two ounces of Epsom salts, and half a pound

of treacle; half a pint of common sweet oil.

Mix them all together, and apply them as directed for Clyster (No. 12, p. 29).

If this clyster, or the afore-mentioned ones, should not have the desired effect, it will be proper to give the drink (No. 14, p. 32); and if the animal be not better in the course of five or six hours after, give him the drink (No. 17, p. 36), and treat him as for the inflammatory colic.

CHAP. IX.

OF COLDS AND COUGHS.

CATARRH, or cold, is a complaint well understood by those persons who are accustomed to horses, and requires but little description. Colds are the effect of an obstructed perspiration, inducing an inflammatory action in the mucous membrane of the nose, throat, or windpipe, with an increased secretion of mucus from these parts, and is frequently accompanied with symptoms of fever. After a horse has taken cold, he is sometimes seized with slight shiverings; eyes appear heavy, dull, or inflamed; watery discharge from the eyes and nose; cough. Catarrhs are almost always occasioned by sudden or imprudent transi-

tion from *heat to cold*; as standing too long when heated, or from drinking cold water after violent exercise, or by going into rivers and ponds when over-heated: they rarely or never arise by the change from a *cool* to a *heated* atmosphere, as some would suppose. Most persons believe and know, that cold water is dangerous for horses that are heated with violent exercise; that is to say, when they are permitted to drink their fill, and afterwards to stand till cold. This is very dangerous, and is often the source of many incurable diseases. Yet a horse, when travelling post, or over-heated in the hot season of the year, may be allowed to take five or six swallows of cold water, and stand for one or two minutes after, but never more; and should then resume his labour. Or if the ostler or groom would be at the trouble of dipping a wisp of hay into a pail of water and let him eat it, and after that have five or six swallows, would perhaps be better. How few are sensible that the internal parts continue hot and inflamed for a long time after the skin appears to be dry and cool: hence it is necessary to observe, that a horse should be considered, while under violent exercise, and for some time after, to be in a temporary fever.

When this complaint is permitted to remain

without proper medical assistance, or from repeated attacks thereof, and improperly treated, it not unfrequently brings on some obstinate disorders; such as chronic cough, roaring, thick wind, inflammation of the lungs, farcy, and glanders, &c. A horse, I may here observe, is called a *roarer*, when inflammation has attacked the windpipe, or its branches, and caused an effusion of coagulable lymph in them, which contracts these passages, frequently forming bands across the air-tubes, and thus impedes the free egress of the air, by which a peculiar sound is produced (called roaring), and which becomes more particularly audible, when the pace of the horse is quickened.

Treatment.—If the horse be in good condition, take from two to three quarts of blood from him, and then give him the following drink.

(RECIPE, No. 20.)

TAKE.—Aniseeds and caraway seeds, fresh powdered, of each one ounce;

Dover's powders, two drachms;

Balsam of sulphur, two ounces:

Beat the balsam of sulphur with the yolk of an egg, then mix the powders, and give the whole in a pint of warm gruel, with two table spoonfuls of treacle; and repeat it every night, or every other night, for three times.

This will be found a most excellent drink ; it will restore the obstructed perspiration, and thus relieve the effects of the cold, by which it frequently throws off the disease after the first drink or two is given. A warm bran mash should be given about an hour after the drink, and repeated two or three times a day, which will tend to relax the bowels, and favour the operation of the medicines. It is very important to know that all the seeds and roots are fresh powdered at the time of using, as they will not retain their quality in a powdered state ; the essential oil will soon evaporate, and become of but little use. It is also worthy of the horse-keeper's attention, not to purchase seeds and roots in a powdered state from any druggist's shop, as the *latter* not unfrequently purchase them in that state from town at one-half the money the seeds or roots are worth, before they are reduced to powder : it will, therefore, be easy for every one to judge of their quality. All the articles that pass under the denomination of *horse-powders*, are greatly abused by sophistication.

But to return to colds and coughs.—As soon as the horse begins to make some effort to cough, let the following drink be given, which will be found a most excellent pectoral medicine.

(RECIPE, No. 21.)

Pectoral Drink.

TAKE—Diapente, elecampane, nitre, and cream of tartar,
of each one ounce ;
Balsam of sulphur, two ounces, incorporated
with the yolk of an egg ;
Tincture of opium, half an ounce :
Mix them together in form of an electuary.

This drink must be dissolved in a pint of warm gruel, and given to the horse in the morning fasting ; let him stand two hours after without food, and then give him a mash of scalded bran and oats, and warm water. If the cold be violent, the drink may be repeated every night and morning ; or otherwise, once a day, or every other day, as may be thought sufficient. Clothe your horse, and keep him warm ; let him be walked out in the middle of the day, and have mashes and warm water twice a day, or oftener.

Should the bowels, in the progress of the disease, be costive, the purgative clyster (No. 19, p. 38) and a gentle laxative ball may be given, as the recipe (No. 2, p. 22), but only with two or three drachms of aloes in it, and repeated in a morning or two, if the bowels still remain costive.

If the glands or kernels about the head swell, rub the mixture (No. 108) on them. Should there be difficulty of swallowing, the eyes inflamed, breathing laborious or painful, rub the blistering essence (No. 133) on the side of the neck, or between the jaws, or along the track of the windpipe.

CHAP. X.

THE DRY OR CHRONIC COUGH.

THIS is to be considered as a violent effort of the diaphragm, intercostal, and abdominal muscles, arising from irritation of the mucous membrane of the windpipe. The dry or chronic cough, in general, proceeds from colds injudiciously treated, by which the inflammation passes into a chronic or less active state. (See Inflammation.) The secretion of mucus from that membrane becoming altered in its quality, as when free from inflammation, proves a source of irritation which induces coughing.

Chronic cough sometimes arises from the irritation of worms in the stomach or intestines, and then requires the remedies recommended for worms. Horses that have glanders, thick or broken wind, &c. are also subject to this cough.

If the horse appears healthy, can do his business, and eat his food, there is no great danger; and, in all probability, the following drink will effect a cure, if repeated for three or four times.

(RECÍPE, No. 22.)

Cough Drink.

TAKE—Barbadoes tar, anisated balsam of sulphur, of each one ounce;
 Incorporate them with the yolk of an egg: then add
 Nitre, one ounce;
 Ginger, half an ounce;
 Tincture of opium, one ounce:
 Mix them together.

Let this drink be gradually mixed in a pint of warm ale or linseed tea, and give it in the morning fasting; let the horse stand without meat for two hours after; then give him a mash of scalded bran and oats, and warm water. This drink should be repeated every other morning, for three or four times. Give the horse mashes and warm water twice a day, during the time of taking the drinks.

CHAP. XI.

ASTHMA, OR THICK WIND.

THE sudden vicissitude of temperature from heat to cold, frequently gives rise to obstinate inflammations of the lungs, windpipe, or its branches, which, if not timely remedied or removed, may terminate in an effusion of coagulable lymph that impedes free respiration, causing either roaring, thick wind, or broken wind.

Thick wind is occasioned by an effusion of this lymph within the air cells of the lungs, which lymph becoming organized, the air cells of that part are obstructed, and finally destroyed; the texture also of the lungs is here altered, and more dense; all which impairs their elasticity, and diminishes their capacity for air: the lungs, in this state, not receiving their usual quantity of atmospheric air, the oxygen of which is destined to take away the superfluous quantity of carbon contained in the venous blood. Hence, the carbon that required only one expiration to remove it, is not now sufficient; therefore, the respiratory muscles are incited to quicker motion, which is the distinguishing mark of this affection.

An asthma, or thick wind, is distinguished by the following symptoms: a quick and short breathing; the flanks heave with a violent and quick, but equal, motion; if the horse be trotted, or run in the hand, he will wheeze like a person in a fit of asthma.

This disease is sometimes slow in its advance; and if remedies are timely employed, may be totally removed. Great attention should always be paid to a horse's *wind*. If quicker than usual, and apparently arising from an affection of this kind, take two or three quarts of blood from him, or more, if the horse be in good condition, and give him mashes of scalded bran twice a day, for two or three days, and then the following purge.

(RECIPE, No. 23.)

Ball for Thick Wind.

TAKE—Tartarised antimony, and calomel, of each one drachm;

Castile soap, and ginger, of each two drachms;
Syrup sufficient to form it into a ball.

Let this be given at night after he has eaten his mash, and the following purging ball next morning.

(RECIPE, No. 24.)

Purging Ball.

TAKE—Barbadoes aloes, seven drachms ;
Castile soap, and ginger, of each two drachms ;
Dried squills, in powder, one drachm ;
Oil of juniper, half a drachm :
Make them into a ball with syrup of buckthorn.

Let the horse have mash and warm water twice a day, during the operation of the physic, with proper exercise ; if he does not appear to recover in the space of one week after taking the above physic, give him the following drink.

(RECIPE, No. 25.)

Drink for Thick Wind.

TAKE—Balsam of capivi, one ounce, incorporated with the yolk of an egg ;
Gum ammoniac, in powder one ounce ;
Rub it in a mortar with four ounces of vinegar of squills, by a little at a time ; then add,
Ginger, and liquorice powder, of each one ounce, fresh powdered :
Calomel, two scruples ;
Opium, half a drachm :
Mix them all together into an electuary.

This drink is to be given in a pint and a half of linseed tea (let it be new-milk-warm, or nearly cold, before it is mixed, or otherwise the gums will run

together in lumps), in the morning fasting; and may be repeated every other day, if necessary, for three times. In most cases these medicines will be found to have the desired effect, and to remove the complaint in the worst of cases; yet it will be necessary to give the horse pectoral medicines for some time after, or until he is perfectly restored. The following balls will be found excellent for the purpose.

(RECIPE, No. 26.)

Pectoral Balls.

TAKE—Barbadoes tar, Venice turpentine, and Castile soap, of each three ounces;
Prepared kali, one ounce; beat them together in a mortar;
Then add caraway seeds, aniseeds, and liquorice powder, of each four ounces;
Squills, in powder, one ounce and a half;
Honey, or treacle, sufficient to form them into balls of two ounces each.

Let one of these balls be give once a day, every other day, or every third day, as occasion may require. These balls will be found of excellent service in all asthmatic coughs of a dry, harsh, and stubborn nature. They act as a powerful pectoral cordial, and diuretic medicine, than which none can be better calculated for carrying off the remains of the disease.

CHAP. XII.

THE GLANDERS.

THE glanders has baffled the farrier more than any other disease to which this useful animal is liable. In its worst stage, I believe, it has hitherto proved incurable; but we are confident it might at all times, with proper care and management, be prevented, if attended to in time. It is highly contagious; and when any thing of this kind happens in a stable of horses, the diseased should be removed to fresh apartments as soon as possible.

This disease generally arises from contagion, which soon propagates itself through the mass of blood, affecting more or less the whole system; but more particularly the mucous membrane of the nose and lungs, and the glands of the neck, producing a peculiar morbid action in this membrane, which alters the natural and healthful secretion of its mucus to a matter that has the peculiar and wonderful property of communicating the like disease to a healthy horse; as by drinking out of the same pail of water; by inoculation, and other means.

Though contagion is the most common source of this disease, it often prevails in places where no infection has existed : induced by some peculiar unknown change that the blood has undergone. I lately had six horses under my care, where no cause could be assigned for this complaint, except over-exertion and noxious air, arising from a number of horses being in the same stable, and not sufficiently ventilated.

The symptoms accompanying this disorder are a discharge of thick whitish matter, sometimes from both nostrils, but more often only from one ; and then the kernels under the jaw of that side are generally swelled, and adhere closely to the jaw-bone. As the disease advances, the matter becomes yellowish, or inclining to a green colour, and sticks to the middle of the passage like paste or glue. When ulceration takes place, the discharge is mostly streaked or tinged with blood, of a disagreeable odour, and often not so thick as usual. In severe cases the bones of the nose become affected, and begin to decay ; then the discharge is very offensive, and the disease may be deemed incurable. It is always attended with a hard swelling of the glands or kernels under the jaws. The disease makes its appearance with a slight inflam-

mation on the mucous membrane of the nose, while every other part of the body appears to be free from the complaint.

It is highly necessary you should distinguish this disease from others that bear some resemblance to it. Colds may be known by the eyes being dull and watery, no appetite, and a cough, with symptoms of fever, more or less severe ; a discharge from both nostrils ; in glanders frequently only from one ; the kernels sometimes swell, but they are not so closely attached to the jaw-bone as in glanders ; neither are they so hot and inflamed ; in glanders ulceration takes place, sooner or later ; in colds, never, I believe.

After some long-continued disease, that has been brought on by hard labour, I have known the windpipe, or lungs, become affected, and a whitish matter tinged with yellow discharged from the nostrils. This may be distinguished from glanders by the preceding disease that has induced it, and no ulceration existing in the nostrils : this affection soon yields to gentle mercurial physicking and rest. In strangles the kernels swell to a larger size than they do in glanders, and matter is soon formed, which is evacuated either by bursting or opening with a pen-knife, or lancet. There is also

cough, with sometimes considerable fever. (See the section on Strangles, *infra*.)

In an attempt to cure this most formidable disease we must first consider the horse's constitution, habit of body, and the state the disease may have reduced him to. If on examination he be found able to undergo the operation of the following mercurial and purgative medicines, let them be administered.

(RECIPE, No. 27.)

Mercurial Ball.

TAKE—Calomel, one drachm;
Red nitrate of quicksilver, one scruple, reduced
into fine powder;
Precipitated sulphuret of antimony, ginger,
and Castile soap, of each two drachms:
Make them into a ball, with a little syrup.

Let this ball be given at night, after the horse has eaten his mash, and the following purgative ball next morning.

(RECIPE, No. 28.)

Purgative Ball.

TAKE—Barbadoes aloes, six drachms;
Ginger, and Castile soap, of each two drachms;
Oil of sassafras, half a drachm:
Beat the whole into a ball with syrup of buckthorn.

The horse must have mashes, warm water, and exercise, in the same manner as for other physic. (See p. 20.)

The morning after the operation of the physic, give him the following ball, and repeat it night and morning for the space of three or four weeks, if no unfavourable symptoms forbid it. Should the horse appear indisposed from it, omit it for two or three days, and begin again, or else lessen the quantity of calomel; should it cause purging, discontinue it for a short time, or add two scruples of opium to it, till the purging ceases.

(RECIPE, No. 29.)

TAKE—Calomel, two scruples :

Oak bark, in fine powder, one ounce :

Make into a ball with honey or treacle.

After this has been given for the stated time, and the disease is not yet cured, but appears on the decline, you must now only give the ball once a day, and continue it till the ulcers disappear; or the following acid drink may be administered, particularly if the horse is reduced, or some discharge continues after the ulcers have healed.

(RECIPE, No. 30.)

Nitro-Muriatic Acid Drink.

TAKE—Nitrous acid, two drachms, diluted with two ounces of water; and then add muriatic acid, two drachms; decoction of oak bark one quart:

Mix the nitrous acid first with the water, then add the muriatic acid, and lastly the decoction.

This may be given to the horse once a day, or every other day, as may be thought proper, and continued for eight or ten days; then omit it for a few days, and repeat it as before, if necessary. When the horse is reduced by the severity of the disease, I have sometimes commenced with the acid drink till his strength is recruited, and able to undergo the operation of the aforesaid mercurial physic, &c. The horse, while under the influence of mercury, must be clothed when exercised, to prevent him from taking cold.

In every stage of this disorder I would recommend the following injection, or ointment, to be used, as may be thought most proper.

(RECIPE, No. 31.)

Injection.

TAKE—Calomel, four drachms;

Lime water, one pint:

Make new-milk-warm, and shake it immediately before injecting it.

(RECIPE, No. 32.)

Injection.

TAKE—Corrosive sublimate, twelve grains;
Spirits of wine, two drachms;
Lime water, one pint:
Dissolve the sublimate in the spirits of wine,
then add the lime water, and, immediately
before injecting it, make it new-milk-warm
and shake it well.

The best method of using these mixtures is, to take a syringe, or pipe, about ten inches long, that will hold four ounces of the mixture, or injection, and force it up his nostrils every morning before he goes to exercise, and every evening after he returns. The following ointment will be found of excellent use in ulcers of this kind.

(RECIPE, No. 33.)

Ointment of nitrated Quicksilver.

TAKE—Quicksilver, one ounce; and nitrous acid two ounces; put them into a bottle, and let it stand uncorked until the silver is dissolved;
Then add camphor, one ounce; dissolve it in ten ounces of common sweet oil; and mix the whole together in a pot for use. ' °

The method of using this ointment, for ulcers in the nostrils of glandered horses, is as follows :

take a paint-brush (such as is in general called a sash-tool); the hair must be soft and fine, the shaft or handle must be small and long; varnish brushes may occasionally be met with that will suit this purpose much better than the former. These may, in general, be procured of the druggists, or stationers, in most large towns. Let a sufficient quantity of this ointment be put into a gallipot, and set near the fire, that it may liquefy; then take your brush, and dip it in the melted ointment, and pass it gently up one of his nostrils, and with a steady hand work it easily about. This may be done once a day, or three times a week. If the horse be in high condition, bleeding and rowelling will be serviceable; but if poor, the contrary. Blistering will also be necessary in this disease: first clip off the hair from the kernels, which are under the throat, or, more properly speaking, upon the glands betwixt the jaw-bones; then apply a strong blister on the swelled part, which must be repeated every morning for a week; afterwards rub the kernels with a small quantity of the above nitrated ointment once a day for a month, or six weeks.

This will greatly relieve the glands of that inflammatory tumour with which they are affected. M. La Fosse, farrier to the king of France, has

endeavoured to cast a new light on this disease, and a method of curing it by trepanning; but as this is little practised in England, especially among the country farriers, any further notice of his mode would be unnecessary.

CHAP. XIII.

OF THE FARCY.

THE farcy and the glanders seem to originate from one and the same cause; but as the latter has already been treated of, we shall now proceed to the former disease.

Farcy, at its commencement, is confined to the superficial absorbents or lymphatics* of the skin, which become inflamed by the specific influence of the poison received by them. This morbid action seems to impair the function of these vessels; their coats become relaxed, and incapable of propelling their contents; a congestion, therefore, is the consequence. These lymphatics contain a watery, or serous fluid, and have valves, the use of which is

* *Farriers were formerly unacquainted with the absorbent or lymphatic vessels, and accordingly took them to be veins that were diseased.*

to prevent the regurgitation of the fluid. In farcy, these vessels have a knotted appearance where the valves are situated, and are commonly called buds, or berries. The disease is known by the following symptoms.

Farcy buds appear along the course of the lymphatic vessels, which are first hard, but soon turn to soft blisters; when broken, they discharge a thinnish matter, tinged with blood, and often turn into obstinate and malignant ulcers. In some horses it shows itself on the head only, or neck; in others, on the shoulder and inside of the fore-leg (commonly called the fore-arm), towards the knee, and often upwards to the brisket; in some it shows itself on the hind parts, about the pasterns, and along the large lymphatic vessels, on the inside of the thigh, rising upwards into the groin, and towards the sheath; sometimes it appears on the flanks, and spreads by degrees towards the lower belly; and when the disease proceeds, the mucous membrane of the nose is affected in a similar manner to what it is in glanders, and it may now be said to have terminated in glanders.

When the farcy first appears on the lymphatic vessels, about the forehead, cheeks, outside of the shoulders, near the withers, or the hip, &c. it is

considered as a local disease, and its cure may easily be effected. The most difficult symptoms attending this disease, are, when the lymphatics of the head, neck, inside of the fore or hind leg, are ulcerated and set with buds, so that the glands, or kernels, to which these lymphatics go, swell and are inflamed, as the glands or kernels of the jaws, those situated on the front and outer side of the chest, or those of the groin. In these cases, we may take it for granted, that the poison has entered the circulating mass of blood, which will soon evince itself, by its morbid action on the mucous membrane of the nose, and likewise farcy buds appearing on other parts of the skin, which were not before affected. This is a constitutional affection, and without due attention to a regular course of medicine, proper feeding, and exercise, the disorder will increase, and end in an incurable glanders.

When the disease is detected at its commencement, and appears a local affection, as described above, the actual cautery should be applied to the farcy buds, so as to open them, and destroy the diseased parts; and this may be done, should they be ulcerated or not; then dress them with the nitrated ointment every day (No. 33, p. 56), and give the following drink after the operation.

(RECIPE, No. 34.)

TAKK—Roach alum, one ounce;
Bole armenian, half an ounce;
Oak bark, in fine powder, two ounces:
Mix for one drink, and give in a pint of gruel.

This drink must be given every day, or every other day, for a week or more, if thought proper; give it fasting in the morning, and let the horse eat nothing for four hours after taking it; then let him have a hot mash of scalded bran, and oats, and warm water. I have frequently cured the disorder in this stage, by the above drink (No. 34), and rubbing the lymphatic vessels and buds every day well with the mercurial ointment (No. 39, p. 64); but no doubt, in most instances, it may be better to apply the actual cautery to the buds, and give the drink (No. 34).

Should the disease be more advanced, and the system supposed to be contaminated with the poison, which may be known by an attention to the symptoms just mentioned, recourse must be had to more powerful medicines, and none will be more effectual than the following.

(RECIPE, No. 35.)

Mercurial Drink.

TAKE—Corrosive sublimate, from twelve to twenty grains;

Muriatic acid, two drachms:

Mix them in a phial, and shake it until the sublimate be dissolved, then give it to the horse, in a quart of the decoction of oak bark.

If a ball be preferred, the following may be given.

(RECIPE, No. 36.)

Mercurial Ball.

TAKE—Corrosive sublimate, from twelve to twenty grains;

Oak bark, in fine powder, six drachms:

Rub the sublimate into very fine powder, then add the bark, and make into a ball with syrup.

The mercurial drink, or ball, must be given every night and morning for a week, or more, after the symptoms have disappeared. The quantity of sublimate may be increased to thirty grains, if the horse can bear it. Keep the animal warm, and in regular diet, with gentle exercise twice a day, if the weather be fine: give him warm water and mashes, morning and evening, during the course of taking this medicine.

Should, however, any violent symptoms arise from taking the above directed mercurial drink, or ball, so as to produce excessive sickness, purging, and griping pains in the bowels, the following drink may be given, and the mercurial medicine suspended till the horse is better, and then commence with the mercurial ball, as directed in glanders (No. 29, p. 54), omitting the sublimate drink, or ball.

(RECIPE, No. 37.)

Opening Anodyne Drink.

TAKE—Prepared kali, and tincture of opium, of each half an ounce;
Castor oil, half a pound;
Ginger, fresh powdered, one ounce:
To be given in a pint of warm gruel.

This drink may be repeated twice in the course of the day, if the symptoms do not abate after the first dose: nothing can be more effectual than the above drink in checking the effects of mercurials, and therefore it may be given at all times, when that article exceeds its proper bounds. It sometimes happens that persons of *skill* and *judgment* are not called in to render their assistance before the horse is reduced to a state that is nearly *past recovery*. When this is the case, let him have the following drink.

(RECIPE, No. 38.)

Bracing and Strengthening Drink.

TAKE—Peruvian bark, and caraway seeds, of each half an ounce, in powder ;
Nitre, two drachms ;
Ginger, one ounce ;
Oil of vitriol, thirty drops ;
To be given in a quart of the decoction of oak bark (see Pharmacopœia), new-milk-warm.

This drink must be repeated every day for three or four times ; after which give him the mercurial drink or ball (No. 35 or 36, p. 62), as there directed.

The following mercurial ointment will be found excellent to rub the lymphatic vessels and farcy buds with, both before and after they are broken, when the actual cautery is not employed ; in which case, it may then be rubbed along these vessels after this operation.

(RECIPE, No. 39.)

Mercurial Ointment.

TAKE—Hogs lard, lbij *i. e.* two pounds ;
Quicksilver, one pound ;
Strained turpentine, four ounces ;
Oil of turpentine, two ounces ;
Put the quicksilver with both the turpentines in a marble mortar, until the mercury is per-

feetly incorporated; then gradually add the lard melted, beating and mixing them well together.

This ointment will be found to stimulate the vessels to contract, and will also disperse the farcy tumours: *it must be well rubbed on the parts affected once a day.*

When the skin is thickened over the ulcers, so as to confine the matter, it must be opened with a small hot iron, or a lancet. The buds in the farcy are very apt to turn into foul ulcers, and the orifices to fill with proud flesh, which, if the actual cautery is not employed to destroy the ulcerated buds, may be suppressed by touching the superfluous part with a skewer dipped in butter of antimony or aquafortis, and afterwards by rubbing the knots or buds with the ointment (No. 33, p. 61). I have found this ointment to be sometimes more effectual in destroying the virus, and likewise in cleansing and healing the ulcers that attend this disease, than the afore-mentioned mercurial ointment (No. 39, p. 70). If the part be much swollen, and attended with considerable inflammation, it must be fomented twice every day with the following fomentation.

(RECIPE, No. 40.)

Fomentation.

TAKE—Wormwood, camomile flowers, and horseradish root, of each one handful;
Poppy-heads, one dozen: bruise them and boil in three gallons of water.

● The swelled part must be fomented (with hot flannels wrung out of the same) twice every day, for one hour each time. This being done, let the part be rubbed well with the following ointment.

(RECIPE, No. 41.)

TAKE—Marshmallow ointment, and elder ointment, of each four ounces;
Soft soap, and spirits of turpentine, each two ounces; ointment (No. 33, p. 61, or No. 39, p. 70), three ounces:
Mix them all well together for use.

After this ointment has been well rubbed on the part affected, take a hot flannel out of the last-mentioned fomentation and wring out the moisture; apply the flannel *while hot* to the swollen part, and bind it on with a flannel roller, three yards long, and six or eight inches broad.

When the tumour comes to a proper head (which may be easily felt with the finger), it may

be discharged with a lancet, and the wound dressed with a skewer dipped in a little butter of antimony; and afterwards, with a tent made of lint, or tow, dipped in the digestive oils, or ointment, used for green wounds. The smaller the tent is, the more oils or ointment it carries into the wound; which should never be dressed with tents longer than while the tumour is subsiding, otherwise it may impede the cure.

There are diseases, of the extremities, apparently not arising from the infection of a glandered or farcied horse; but from some inactivity of these lymphatic vessels, caused by fulness or grossness of habit, &c. that very much resemble farcy, except that there are no malignant ulcers present. I have readily cured these swellings of the extremities, by giving the mercurial ball (No. 27, p. 58), and working it off with the following purging and diuretic drink.

(RECIPE, No. 42.)

A Purging Drink.

TAKE—Barbadoes aloes, seven drachms;
 Cream of tartar, one ounce;
 Ginger, nitre, and anised, of each half an ounce, in powder:
 Dissolve, and give them in a pint and a half of warm ale.

This drink must be given in the morning fasting, and the horse must eat nothing for two hours after; let him then have a mash of scalded bran, and oats, and warm water, twice a day; if he is in good condition take two or three quarts of blood from him; but if lean, the loss of too much blood will prove injurious. The following diuretic drink must be given after the operation of the physic.

(RECIPE, No. 43.)

Diuretic Drink.

TAKE—Juniper berries, two ounces;
Brown soap, one ounce;
Nitre, half an ounce;
Resin, in powder, two ounces;
Mix, and give it in a pint of cold ale.

I wish, before I take leave of this interesting subject, to inform my readers that I have frequently even cured farcy at its commencement by the mercurial ball (No. 27, p. 58), and the purging and diuretic drink (No. 42, p. 73, and No. 43, p. 74): they appear to operate by depleting the system, and stimulating these lymphatic vessels to greater activity, by which the poison, from some means or other, becomes eradicated.

When, however, the wound is perfectly cleansed,

it must be dressed once a day with equal parts of egyptiacum, and tincture of myrrh, mixed together; the wound should be anointed both within and on the outside, with a feather dipped in the mixture; afterwards let burnt alum, mixed with bole armenic, be strewed over it, which will soon heal it.

CHAP. XIV.

SURFEITS AND HIDEBOUND.

SURFEITS in horses proceed from various causes, and are chiefly owing to some long-continued disease that has been badly cured, or neglected.

A horse is said to be surfeited when his coat stares, is of a dirty rusty colour, and the skin full of scabs and scurf, which if rubbed off return again. Others have small lumps, like beans or peas, which are frequently occasioned by the horse drinking largely of cold water when the body has been unusually warm. Bleeding, or a gentle purge, will be found to remove, and effectually cure, this kind of surfeit. Some have scabs all over their limbs and bodies, sometimes moist and sometimes dry, attended with heat and so much irritation, that they chafe themselves raw in many places. Others

have flying pains and lameness, resembling the rheumatism or gout.

In the cure of these complaints, it will first be necessary to give him a dose or two of mercurial physic, if he be in condition, and able to undergo it: afterwards he may have the following balls, which will gently open his bowels, operate by the skin, and put him in a thriving state.

(RECIPE, No. 44.)

Alterative Balls.

TAKE—Crocus of antimony, Venice soap, nitre, flour of sulphur, and Barbadoes aloes, of each four ounces, in fine powder;

Precipitated sulphur of antimony, one ounce;

Mix, and make them into a mass fit for balls, with a sufficient quantity of honey, or treacle, and liquorice powder. Each ball should weigh one ounce and a half.

Or the following balls may be more suitable for him if in low condition, and which I have known to cure without physic.

(RECIPE, No. 45.)

Compound Cordial Balls.

TAKE—Nitre, crocus of antimony, and Castile soap, of each four ounces;

Caraway seeds, aniseed, turmeric, and ginger, of each four ounces; each article must be powdered separately:

Beat them into a mass for balls, with a sufficient quantity of treacle: each ball to weigh two ounces.

These balls will be found well adapted for horses labouring under diseases of this kind; the former are calculated for such horses as are in high condition, the latter for those which are in low condition. One of these balls should be given every morning fasting, before exercise, for the space of a week, and then omitted for three or four days; or, if it be thought more convenient, let one be given every other morning for a fortnight, or three weeks, as circumstances may require. While a horse is under a course of the above medicines, he must have mash of scalded bran and oats twice a day; and if the scabs do not come off in three or four days, or a week's time, after taking either of these balls, let him be well dressed with the scab ointment, in the same manner as used for the mange.

Some horses that are surfeited have no eruption on the skin, but are heavy, dull, and indolent, lean and hidebound, with a staring coat, and unhealthy look. In this sort of surfeits the following drink is an effectual remedy.

(RECIPE, No. 46.)

Surfeit Drink.

TAKE—Caraway seeds, aniseeds, Fenugreek seeds, gentian root, of each one ounce, all in fresh powder;

Mithridate, half an ounce.

Let this drink be given in a pint and a half of warm ale, in the morning, fasting (*no drinks should be boiled that have in them either seeds or roots containing an essential oil*), and let him eat nothing for two hours after; then give him a mash of bran and oats. The drink may be repeated every other day, or every third day, or oftener, as the case may require; taking care to give him at least two mashes, and warm water, each day, during the time of giving the drinks.

What is understood by the name of WET SURFEIT, is nothing more than a moist running scurvy, which appears on different parts of the body, with great heat and inflammation; the neck, or the

withers, often swell greatly in one night's time, and discharge a large quantity of briny humour; sometimes an abscess is the consequence, which, without care, will turn to the poll-evil, or fistula.

This humour sometimes falls on the lower limbs, and is often very troublesome to cure. In this case bleed plentifully, and administer the following purgative drink once a week.

(RECIPE, No. 47.)

Purgative Drink.

TAKE—Of Barbadoes aloes, seven drachms;
Emetic tartar, one drachm;
Cream of tartar, two ounces;
Ginger in powder, half an ounce:
Mix, and dissolve them in a pint of warm ale.

This drink must be given in the morning, fasting; two hours after give him a mash and warm water. If the above drink does not carry off the complaint in the course of a week or a fortnight, recourse must be had to the balls (No. 44, p. 76, or No. 45, p. 77); one of which should be given every other day for a week or a fortnight, and will at most times effectually take away the complaint.

CHAP. XV.

THE MANGE

Is a cutaneous disease, affecting the skin, and rendering it tawny, thick, and full of wrinkles, especially near the mane, ears, loins, and tail. The hair on these parts generally rubs off; and what little remains commonly stands out like pig's bristles. Some horses are so affected with it that there is scarcely a clear place about the body. The following ointment or liniment never fails to promote an entire cure, when properly applied.

(RECIPE, No. 48.)

Ointment for the Mange.

TAKE—Common turpentine, one pound;

Quicksilver, four ounces;

Hog's lard, half a pound;

Flour of sulphur, four bunces;

Train oil, half a pint:

Grind the silver with the turpentine, in a marble mortar, for five or six hours, until it completely disappears; and add a little oil of turpentine to make it rub easier:

Then add the remainder, and work them all well together till united.

This ointment must be well rubbed on every

part affected, *in the open air, if the sun shine, and the weather be warm*; but if it be winter, take the horse to a blacksmith's shop, where a large bar of iron must be heated, and held at a proper distance over him, to warm in the ointment while the person rubs it on, or in a warm stable.

(RECIPE, No. 49.)

Liniment for the Mange.

TAKE—White precipitate, two ounces;
Strong mercurial ointment, two ounces;
Sulphur vivum, one pound;
Flour of sulphur, half a pound;
Rape oil, two quarts:
First, grind the white precipitate in a little oil, afterwards add the remainder, taking care that they are well mixed.

This liniment must be well rubbed in with a hard brush, in the open air, provided the day be fine, and the weather warm: otherwise a bar of iron must be heated and held over his body at a proper distance, in the same manner as for the ointment: it must be repeated if necessary. If the horse draws in a team, the inside of the collar must be washed, or the inside of the saddle, if a saddle-horse, for the disease is highly contagious.

To the preceding recipes and directions may

be added the following, which I have employed upwards of thirty years, and have never found it to fail in any one instance in curing the mange, or scab, in its worst stages. It will be found much more pleasant and more convenient than the former, as it may be washed off at pleasure, with a brush and warm water.

(RECIPE, No. 50.)

Ointment for the Mange or Scab.

TAKE—Quicksilver, and balsam of sulphur, of each four ounces; let them be well rubbed in a marble mortar until every particle of the silver has disappeared:

Then add, soft soap, one pound;

Oil of turpentine, four ounces:

Mix, and beat them all well together for use.

This ointment must be used in the same manner as the former (No. 48, p. 74). Such horses as are affected with the mange, or scab, should have the following powders, for three or four days *before* they are dressed, and also eight or ten days *after* dressing, or longer, if expedient.

(RECIPE, No. 51.)

Compound Antimonial Powders.

TAKE—Crude antimony, in fine powder; nitre; flour of sulphur; and cream of tartar; of each half a pound:

Powder and mix them all together for use.

A table-spoonful of these powders may be mixed in his corn every night and morning, first sprinkling his corn with water, to make the powders adhere, and continue them for some time (or if balls be more convenient, give No. 44, p. 70, or No. 45, p. 71); or, if thought more proper, they may be given in a mash of oats and bran, every night and morning. When a horse has got perfectly freed of this disease, the place where he stood must be well cleansed, and his collar, gear, saddle, clothing, or whatever he wore during the disease, must be well washed with soap-suds; by which method the medicines will rarely, if ever, fail of success.

CHAP. XVI.

THE STAGGERS, CONVULSIONS, LETHARGY, EPILEPSY, AND VERTIGO.

STAGGERS generally arise either from fulness of the blood-vessels of the brain, or an inflammation of it; and as the former frequently terminates in the latter, and both have symptoms common to each other, they are, on this account, described in the same section, under the denominations, *sleeping staggers, and mad staggers, or inflammation of the brain*. From this determination of blood to the head, producing symptoms of convul-

we have seen afflicted with this disease has consisted of such as were purchased from dealers and farmers, and put to hard labour, and full allowance of corn; and kept in close stables, where every hole has been stopped, in order to exclude the air. This, indeed, is one way by which to make his coat *look fine*, and also a sure way to destroy his health.

In these cases, if the most powerful means are not immediately resorted to, the consequence will most likely prove fatal. Bleed the horse according to his size, strength, and condition of body, taking from four to five or six quarts from him, and repeat it in five or six hours after, if necessary, to the extent of two or three quarts, or more, according to the urgency of the symptoms. Instances have frequently occurred in which the animals have suddenly recovered, after the first bleeding. The following ball must be given immediately after bleeding.

(RECIPE, No. 52.)

Mercurial Ball.

TAKE—Calomel, assafoetida, and Castile soap, of each two drachms:

Beat them into a ball, and give it as soon as possible.

The ball being administered, have the following purging drink in readiness, and give it immediately after.

(RECIPE, No. 53.)

TAKE—Aloes, six to seven drachms;

Ginger and Castile soap, of each two drachms;

Epsom salts, four ounces:

Powder the aloes with the ginger; and then add all the ingredients to a pint and a half of rue tea, let them simmer for ten minutes, and, when new-milk-warm, give it.

This drink and ball will clear the stomach of the indigested matter with which it is burdened. If the drink be given in the morning, it generally works briskly, both by stool and urine, before night; if it fails in that space of time, the clyster (No. 12, p. 29) must be administered, after the rectum has been emptied with a small hand.

If worms or bots be the cause of the complaint (which may easily be discovered in the dung, during the operation of the physic), treat him as directed in the section of Worms (*infra*). But if he is not relieved by the application of the above ball and drink, and should be convulsed, recourse must be had to the following drink, or ball, or both, as may be thought most proper,

(RECIPE, No. 54.)

Antispasmodic Drink.

TAKE—Tincture of assafoetida; volatile sal ammoniac,
 in powder, of each one ounce;
 Tincture of opium, half an ounce;
 Valerian root, in powder, one ounce;
 Prepared kall, two drachms:
 To be given in a pint and a half of warm ale.

Or,

(RECIPE, No. 55.)

Antispasmodic Ball.

TAKE—Antimonial powder (which is, in fact, nearly
 the same as James's powders), and gum
 assafoetida, of each two drachms;
 Opium, camphor, and Castile soap, of each
 one drachm:
 Syrup sufficient to make a ball.

Either the drink, or the ball, may be repeated
 once or twice a day, or three times a day in des-
 perate cases. The ball will be found a most power-
 ful antispasmodic medicine in all doses of this kind,
 and will remove pain and spasms in every stage.
 I have, in some cases of mad staggers, given the
 antispasmodic ball (No. 53, p. 81), after the first
 bleeding, with wonderful good effect. Care, how-
 ever, must be taken to keep the body open, by
 giving the above purgative drink (No. 51, p. 76),
 or by giving purging drink (No. 15, p. 32), or the

opening drink (No. 37, p. 63): the two last drinks will be found well calculated to keep the body open in all spasmodic diseases. Bleeding must be continued every day, or every other day, about a quart at a time, more or less, according to the symptoms. Let the following liniment be well rubbed on the cheeks, temples, top of the head and sides of the neck, so as to produce blistering, which will relieve the head in severe cases, and assist the other remedies.

(RECIPE, No. 56.)

Blistering Liniment.

TAKE—Marshmallows ointment, elder ointment, and spirits of sal ammoniac, of each four ounces:
 Oil of turpentine, two ounces;
 Spanish flies, half an ounce:
 Mix, and make them into a liniment for use.

This liniment must be rubbed on the above-mentioned parts, until its effects be seen by the blisters rising: or the following may be used, which I know is preferred by some.

(RECIPE, No. 57.)

Sweating Liniment.

TAKE—Compound soap liniment, water of pure ammonia, tincture of opium, and spirits of turpentine, of each four ounces;
 Olive oil, two ounces;
 Spanish flies, in powder, half an ounce:
 Mix them together in a bottle for use.

This liniment is to be rubbed on in the same manner as the former, until it blisters.. In these complaints the use of rowels would be of great advantage, if it was not for the difficulty of bringing them to a good digestion; but if employed, the most proper place will be in the breast, under the jaws, or in the cheeks.

CHAP. XVII.

OF FEVERS.

FEVERS, in general, are the effects of a strong and unnatural motion of the blood, arising from an increased action of the heart and arteries, which occasions great heat and inflammation of the body, and quickens the pulse beyond its natural speed. The general symptoms are, a loss of appetite; restlessness; the horse ranging from one end of the rack to the other; his eyes are dull, red, and inflamed; his tongue is parched and dry; his flanks beating quicker than usual; his breath hot and offensive; he nibbles his hay, and frequently hangs his head down to the ground; his pulse is hard, and beats upwards of fifty times in a minute; the heat of his body appears several degrees greater than usual, though not parched, as in some inflam-

matory disorders ; bowels commonly costive ; urine scanty and high coloured.

These are the symptoms of a simple inflammatory or idiopathic fever, which, though of rare occurrence in the horse, does undoubtedly sometimes occur. Some suppose that a simple inflammatory or idiopathic fever, such as we have described, never attacks the horse without local inflammation existing, as of the stomach, intestines, lungs, &c. ; and as such they call it a symptomatic fever, because the fever proceeds, they say, from some local disease ; but I can assure these gentlemen, in several cases of this kind, I could not trace any evidence of such local inflammation present, either from the actions of the horse, or any other symptoms. When cases of this kind do occur, where you are doubtful, after a close examination, whether it be an idiopathic, or symptomatic fever, that is present, in these instances bleed the animal more freely than otherwise, and I am assured you cannot err materially.

The simple inflammatory fever is occasioned most commonly from the horse being carelessly exposed to cold when he is heated, or to cold and wet. These obstruct the perspiration, and disorder the functions of the brain and nervous system, apparently with a peculiar morbid excitement ;

hence, the secretions become diminished, and altered in quantity and quality, as the secretion of the gastric juice of the stomach, bile, urine, &c. and the heat of the body increased.

The symptoms of a violent inflammatory fever are similar to those of the staggers, and almost require the same treatment. Sometimes the horse appears quite senseless and stupified; stales and dungs insensibly; ranges about in the stable, and is subject to bruise himself (especially his head) against the walls; his flanks beat; his ears and legs are hot and cold by turns; his body is often in great heat, and sometimes emits cold sweats; here we may presume the brain to be affected; but is it affected from the fever, or does the fever arise from some inflammation of this important organ? It is difficult to decide which; but happily, the same treatment does in either case.

Different authors make mention of a great variety of different kinds of fevers, but they may, in general, be included under the two following heads; *idiopathic* and *symptomatic*.

The *former*, as we have stated, is from a primary affection, and the *latter* from a local affection of some particular organ, as the stomach, intestines, or the lungs; whenever an inflammation

appears on any of these important organs, it soon produces this kind of fever. As soon as a horse is attacked with a fever, bleed him plentifully, to the quantity of three or four quarts, and in the space of two hours after give him the following ball and purgative.

(RECIPE, No. 58.) *

Fever Ball.

TAKE—Antimonial powder, tartarised antimony, and camphor, of each one drachm :
Nitro, and Castile soap, of each two drachms :
Barbadoes aloes, two drachms :
Mix and beat them into a ball with syrup of buckthorn.

Let this ball be given to the horse about two hours after bleeding ; and in six hours after giving him the ball, let him have the following purgative drink.

(RECIPE, No. 59.)

TAKE—Epsom salts, four ounces ;
Nitro, half an ounce ;
Coarse sugar, two table-spoonfuls :
Dissolve them in a quart of gruel ; then add,
ten ounces of castor oil :
Mix, and give it while new-milk-warm.

After the first ball is given, the aloes may be left out, and then the ball and drink may be given once a day (one in the morning, and the other in the evening), until the proper passage be obtained.

It will be proper to assist the medicines in their operation by back-raking, and administering the clyster (No. 12, p. 29). By these means the medicines may be expected to purge in the course of twelve, sixteen, or twenty hours. If, at the end of that time, the fever still continue to increase, it will be proper to take a little more blood from him, and then to have recourse to the following fever powders.

(RECIPE, No. 60.)

A Powerful Mixture for Fevers.

TAKE—Emetic tartar, one ounce;
 Calcined antimony, two ounces;
 Calcined hartshorn, one ounce: mix and grind them in a mortar to a fine powder;
 Then put them in a bottle for use: *two drachms of these powders are a proper dose for a horse.*

A dose of this powder, with one ounce of nitre, may be given twice or three times a day, in a pint of warm gruel, or be made into a ball with conserve of roses. If the fever be violent, and the horse in a raging state, half an ounce of tincture of opium may be added to each dose of powders.

The above powders are excellent for the staggers, convulsions, and all kinds of inflammatory fevers; but, whenever the symptoms appear, a more powerful medicine than the ball (No. 55, p. 82) can hardly be found in the whole *Materia*

Medica. We would therefore advise it to be given in diseases that assume this state. It is supposed that the above powders, as well as the antimonial powder, are equal to those which are held in such high repute in the world, under the name of James's powders.

As the disease begins to abate, the horse will recover his senses, and look more brisk with his eyes; his appearance will be more lively; his appetite will return; and he will now begin to eat his food as formerly. In this case his medicines may be omitted, and the following mild and astringent drink may be administered.

(RECIPE, No. 61.)

TAKE—Peruvian bark, in powder, one ounce;
Gentian root, in powder, half an ounce;
Nitre, one ounce;
Spirits of vitriol, half a drachm;
To be given in a quart of warm ale.

This drink will strengthen and brace the stomach and intestines, promote his appetite, and is likewise excellent in all disorders attended with a slight fever, or when the stomach and bowels are weakened and relaxed by some long-continued disease. It may be given every morning, or every other morning, fasting, for three or four times, or longer, if necessary.

CHAP. XVIII.

OF BRUISES.

BRUISES occur almost daily, where many horses are kept. Such as are of a recent standing, and are not considerable, seldom require more than a few applications of the following astringent oils. But those bruises which are more considerable, where a number of small blood-vessels are ruptured, and their contents are effused into the cellular membrane (which soon becomes filled, and distended), require a different application.

Bruises of *every* description are attended with an inflammation, but in the latter case more considerable. When a horse has been severely bruised, it will be proper to take two or three quarts of blood from him, which will help to check the inflammation. Bruises of the *first* description may be rubbed with the following astringent and healing oils.

(RECIPE, No. 62.)

TAKE—Verjuice, or strong vinegar, four ounces;
 Spirits of turpentine, tincture of myrrh, of each
 one ounce;
 Goulard's extract, one ounce and a half;
 Oil of origanum, half an ounce;
 Mix them all together in a bottle for use.

These oils may be rubbed on the parts affected twice a day at the first, for several days together ; after which, once a day will be sufficient, as soon as the inflammation begins to subside : or the following repellant application may be administered.

(RECIPE, No. 63.)

TAKE—Compound soap liniment, four ounces ;
Water of pure ammonia, spirit of turpentine,
and tincture of opium, of each one ounce :
Mix them in a bottle for use.

Or, the following :

(RECIPE, No. 64.)

Cooling Lotion.

TAKE—Camphorated spirit of wine, six ounces ;
Tincture of opium ; water of acetated litharge
(goulard) ; of each two ounces :
Mix, and put them in a phial for use.

Either of these two last preparations will be found excellent for bruises occasioned by the saddle. Gentlemen keeping a number of horses for hunting or the road, cannot do better than have a bottle ready filled for use. In the latter case, when the bruised part becomes large, and approaches towards suppuration, the following mixed oils will answer the intention much better.

(RECIPE, No. 65.)

TAKE—Linseed oil, spirit of turpentine, water of pure ammonia, oil of olives, of each two ounces:
Mix for use.

Let the parts be well rubbed with these oils twice a day; if necessary, they may be fomented with the recipe (No. 40, p. 66): and if the horse appears heavy, dull, stiff, and sore, and his appetite fails, give him the following drink.

(RECIPE, No. 66.)

A Stomachic Drink.

TAKE—Peruvian bark, and nitre, of each one ounce;
Gentian root in powder; and mithridate; of each half an ounce: to be given in a pint of warm ale.

This drink may be repeated every morning, or every other morning, fasting, until his appetite is recovered, and the soreness and stiffness is removed. Warm water and mashes should also be given twice a day, while he is taking the drink.

CHAP. XIX.

OF THE STRANGLES.

THE strangles is a disease to which most young horses are subject, at one time or other. It generally begins with an inflammatory swelling of the glands or kernels under the ears, and betwixt the jaw-bone, which extends to the muscles of the tongue, and causes great heat, pain, and difficulty of swallowing.

The internal symptoms are, a feverish heat throughout the body, a painful cough, a running of thick matter at the nose, a great thirst, attended with extreme difficulty to drink; some horses entirely lose their appetite, and others eat very sparingly. The inflammation, or swelling, generally appears under the ears, or on the inside of the jaw-bone, sometimes in the middle, betwixt the jaws, under the tongue-roots, the upper part of the throat, called the larynx, or the head of the windpipe, or gullet. When this last part is affected, he breathes quick, and holds out his nose and head constantly in the same position, his eyes appearing as though they were fixed in his head. The running at the nose sometimes continues

longer and in greater quantity than usual, and may, without proper care and management, turn to the glanders.

The best remedy is, to use every endeavour to assist nature, by keeping the horse in a warm stable, and well covered with a rug. Warm water, and hot mashes, should be given two or three times a day; not omitting to bed him well down, and to hand-rub his legs frequently in the course of the day. Bleeding must never be permitted in this disease, as it would tend to check the progress of the tumified glands in their process towards suppuration, and consequently cause the animal to recover very slowly. If horses have been attacked in the winter season, they seldom come about until they have been some time at grass, in the spring of the year.

It will be proper to give the horse every third day the drink (No. 61, p. 89); and, on the intervening days, a cordial ball. Three or four of the drinks should be given, and more if required; but the balls may be continued till the tumour becomes softish to the touch, and ready for opening: these will not only very much strengthen his stomach, but increase his appetite, and assist in bringing the swelling to a suppuration in a shorter time.

The swelling under the jaws must be well rubbed once or twice a day with the following liniment; and afterwards a poultice must be applied over the swelled part, and his head and neck covered with a warm hood, or flannel.

(RECIPE, No. 67.)

Softening Liniment.

TAKE—Elder ointment, and marshmallows ointment, of each four ounces;

Water of pure ammonia (formerly known by the name of spirit of sal ammoniac), and spirit of turpentine, of each two ounces:

Strong camphorated spirit of wine, four ounces:

Mix them well together in a marble mortar for use.

(RECIPE, No. 68.)

A Poultice for Swellings.

TAKE—Water, or stale beer grounds, one quart;

Oatmeal, or linseed in powder, half a pound:

Common salt three table spoonfuls:

Boil them together, and if too thin, add rye-flour sufficient to bring it to a proper consistency; then add two ounces of hog's lard, or half an ounce of rape seed oil, to prevent it from becoming stiff and dry after it is applied on the part affected.

After the tumified parts of the glands, between the jaws, and on the throat, have been well rub-

bed with the above liniment, or with the mixed oils (No. 63, p. 91), if thought more proper, apply a large poultice over the part as hot as the horse can bear it. The matter is, in general, formed in the course of five or six days, and if not let out with a lancet, or some other instrument, it will force its way through the skin: in this case, the orifice is seldom sufficient of itself, but may be farther enlarged with a lancet; and afterwards dressed with the following digestive ointment.

(RECIPE, No. 69.)

TAKE—Bees wax, and common turpentine, of each four ounces;
Black pitch, two ounces;
Rosin, six ounces;
Linseed oil, one pint:
Melt them all together over a slow fire; then take them from the fire, and add,
Spirit of turpentine, four ounces;
Verdigrease, in fine powder, two ounces:
Put them in a pot, and stir until cold.

When this ointment is used, a small quantity should be melted in an iron ladle, and the wound dressed with a small tent of tow dipped in it, once a day. If the wound appears to heal too fast, it may be kept open by dressing it with a skewer dipt in butter of antimony for a few times: this

will keep the wound sufficiently open till the tumour is discharged. If any lumps, or hard kernels, still remain under the jaws, they may be dressed with the *ointment of nitrate of quicksilver* (No. 33, p. 56), once a day for eight or ten days, which will, in general, remove them in that time; if not, it will be proper to blister the part for three mornings together with the blistering ointment (No. 90, *infra*).

CHAP. XX.

DISEASES OF THE EYES.

DISEASES of the eye require to be treated by men of skill and attention: some of them proceed from external injuries affecting the globe of the eye; while others arise from internal causes, affecting also the humours within the globe, as from plethora, or redundancy of blood in the body. In all recent disorders from external injuries, such as blows, bruises, hurts, &c. and the eyelid attended with swelling and inflammation, the eye must first be washed with a little of the following eye-water. .-

(RECIPE, No. 70.)

TAKE—Camphor, two drachms, dissolved in two ounces
of rectified spirit of wine;
Goulard's extract, one ounce;
Rose water, one quart:
Shake all together in a bottle for use.

Let the eye and the eyelids be well bathed three or four times a day, with a clean linen rag dipped in the eye-water: the eye may be opened with the finger and thumb, and a fine rag dipped in the eye-water and drawn over the eye, leaving a few drops upon it; or, if the mouth of the bottle be smooth, it may be put betwixt the eyelids, then draw the bottle towards you, leaving some of the eye-water upon the eye as before. If it be much swelled and inflamed, let the part (after it has been well rubbed with the eye-water, and become dry) be well anointed with—spermaceti ointment, four ounces; camphor, two drachms; to be well united by rubbing them together in a marble mortar. This ointment may be rubbed on the part affected twice a day, and afterwards the following poultice applied over it.

(RECIPE, No. 71.)

TAKE—White bread crumbs, and old milk: boil them together into a proper consistency for a poultice: then add a small quantity of common sweet oil or olive oil to it.

Should the inflammation be rather protracted, I have then had recourse to the following astringent poultice with happy effect.

(RECIPE, No. 72.)

TAKE—Vinegar, or verjuice, one quart; boil it up with a sufficient quantity of rye-flour, to the consistency of an electuary; then add two ounces of elder ointment: stir all together, and apply it new-milk-warm.

Either of these poultices must be spread on strong linen cloth, or enclosed in a cotton bag, and laid on the part affected. If the symptoms do not abate in three or four days' time, recourse must be had to bleeding and purging. In every stage of this disorder the horse must have warm water and mashes. All wounds on the eyelids must be carefully examined with a suitable probe, or with a quill made smooth at the end, and afterwards dressed with the following mixture.

(RECIPE, No. 73.)

TAKE—Compound tincture of benzoin, two ounces;
Honey of roses, one ounce;
Nitrous acid, from twenty to thirty drops:
Mix them in a bottle for use.

This will be found very excellent for wounds

about so tender a part as the eye. The wound must be dressed with a tent of fine tow, or lint, dipt in the mixture, and introduced into the wound; and, if swelled, the poultice (No. 70, p. 98) must be applied over the part; or in its stead, an equal quantity of elder and marshmallow ointments, mixed together, and rubbed on the part affected. If a film, or slough, remain in the eye after the above treatment, it may be removed by the application of the following powders.

(RECIPE, No. 74.)

TAKE—Sal ammoniac, two drachms;

Tutty, prepared, and lump sugar, of each one drachm :

Powder each article separately, then mix them together, and put them in a bottle for use.

A small quantity of this powder may be blown into the eye once or twice a day. If this produce not the desired effect, take an equal quantity of burnt alum, and glass, in fine powder, and make them into a stiff paste with honey, and apply the size of a pea under the eyelid, once a day, until the speck, or film, be removed; afterwards bathe the eye twice a day with the eye-water (No. 70, p. 98) until its strength is recovered.

CHAP. XXI.

MOON EYES, OR INFLAMMATION OF THE
EYES.

THIS disease makes its appearance when the horse is about five or six years old, or at the time when he comes to a state of maturity, or full growth, and returns periodically. It first makes its appearance with a dim cloud over the eye; the eyelids are much swollen and inflamed, and in general shut; the globe of the eye looks dull and red; its sensibility is increased, so that when exposed to light the eyelids close to avoid it; if the eyelids are opened by the hand, or animal, in this state, the haw is found to cover the surface of the eye considerably, to prevent the stimulus of the light, and supply the office of the eyelids; a sharp, corrosive, and watery humour constantly running from it, which irritates the cheek, and takes off the hair as far as it goes; sometimes there is a complete opacity of the surface of the eye from an effusion of coagulable lymph.

The vessels of the white of the eye, some of which enter the transparent part of the eye (called

cornea), are, in inflammation, so increased in their diameter, that they can admit the red parts of the blood to pass through them, which before only allowed the almost colourless part to pass; and the minute vessels of the cornea, which carry lymph (the watery or serous part of the blood) are also, in inflammation, enlarged in their diameter: so that this fluid, by being increased in quantity, renders the cornea less transparent:—the former explains why the eye appears red, and the latter, how the surface of the eye becomes dim, whenever inflammation attacks this important organ. When the cornea becomes completely opaque, from the severity of inflammation, this opacity is chiefly owing to an effusion of coagulable lymph within the vessels. This inflammation of the eye, though it may be cured, is very apt to return again, and, from its frequent attacks, it at last gives rise to cataract, an affection of the eye which consists of an opacity of the crystalline humour within the globe, or of the delicate membrane with which that humour is lined; but I have always found both the humour and its membrane affected in cataract. This opacity diminishes, or totally extinguishes the sight, by its interrupting the passage of light to the retina: after cataract is formed, the disease, I believe, never returns again in that eye.

The causes that may induce this disease, are, a redundancy of blood in the system, which the horse is very subject to at this period; want of sufficient exercise, and confinement in dark and ill-ventilated stables; violent and excessive exertions, as in breaking, &c. which derange the whole system, and increase the flow of blood to the head: all these causes will excite the disease, if there is a predisposition to it in the constitution of the horse.

The horse must first be bled, his eyes should then be bathed three or four times a day with the eye-water (No. 70, p. 98), and mashes of scalded bran be given twice a day for two or three days: then give him the following ball.

(RECIPE, No. 75.)

TAKE—Tartarised antimony (emetic tartar) one drachm;
White antimonial powder, one drachm;
Calomel, half a drachm;
Castile soap, two drachms:
Make them into a ball, and give it to the horse at night, and the following purge next morning.

(RECIPE, No. 76.)

TAKE—Barbadoes aloes, six or seven drachms;
Castile soap, two drachms;
Ginger, in powder, half an ounce;
Oil of juniper, half a drachm;
Nitre, two drachms:
Make them into a ball with syrup of buckthorn.

This ball must be given in the morning fasting ; in two hours after, give him a mash, and warm water ; and treat in the same manner as in page 21, for physic. It will be proper to repeat the physic every five or six days for two or three times.

Rowelling under the jaw, or on the breast, will be found very useful ; as will also blistering the cheeks with the essence (No. 133). Should the eye or eyes continue much inflamed, after taking the aforesaid physic, it will not be proper to have recourse again to general, but local, bleeding ; as scarifying the distended vessels of the white of the eye with a lancet, or applying six or eight leeches just under the eye. After the inflammation has somewhat abated by these means, I have ordered the following lotion, which I have found highly efficacious in removing this formidable disease, and also in preventing a return of it ; for which purpose it must be used night and morning twice or three times a week, after the inflammation has left the eye, and continued, more or less frequent, till there is little fear of its return again.

(RECIPE, No. 77.)

Eye Lotion.

Vinegar and decoction of oak bark, of each six ounces ;
Tincture of opium, half an ounce :

Let the eye and the eyelids be gently bathed night and morning, or oftener, with a clean linen rag dipped in it.

This application will be rather irritating to the eye at first, but it will become less so, more and more as it is used. You must commence with the following balls, after the first physicking ball (No. 76,) has done operating.

(RECIPE, No. 78.)

Balls for Inflammation of the Eyes.

TAKE—Nitre, four ounces ;
Venice turpentine, two ounces ;
Castile soap, one ounce ;
Emetic tartar, two drachms ;
Calomel, two drachms ;
Liquorice powder, sufficient to make into six balls.

One of these balls may be given every other day for some time ; and, by a steady perseverance in the application of the aforesaid medicines, a cure may be expected, and a return of the disease generally prevented by the lotion and the balls (Nos. 77 and 78,) occasionally given, with proper attention also paid to feeding and exercise. The haw was formerly sometimes removed in this complaint, but is now found to be improper.

CHAP. XXII.

INFLAMMATION OF THE LUNGS.

INFLAMMATION of the lungs, either on account of its frequent occurrence, or the importance of the parts affected, or as being one of the most fatal complaints to which this noble animal is subject to, is a disease of very great moment, and deserving our most particular attention. The delicate texture of the lungs, and their entire action, so necessary for the continuance and proper functions of life, teach us, that when this part becomes affected with inflammation, the most active means must be immediately employed to remove it, and one of the most efficacious is bleeding ; which, on some occasions, is persevered in to an extent scarcely credible to those who have not had practical experience in such cases.

Some medical authors have made a distinction between the inflammation which affects the substance of the lungs, and that affecting the membrane which surrounds the substance of the lungs ; but such distinctions, I believe, very rarely, or perhaps never, exist in the horse : and if they did,

it would prove of no practical utility, as the same treatment would be required in either case. In all the horses that I have examined after death in this complaint, both the substance of the lungs and its membrane were inflamed.

This disease first begins with symptoms of fever, as almost every inflammation of the more internal parts is accustomed to do; as loss of appetite; shivering of the limbs; restlessness; head hanging down; flanks beating quicker than usual; very soon after, the breathing becomes more affected, and the disease is known to be present by the following symptoms.

Symptoms of inflammation of the lungs are, quick and difficult breathing; heaving and working of the flanks; restlessness; nostrils expanded to admit more air than usual; head hanging down and inclined to the seat of the disease, expressive of pain and trouble; scarcely ever attempting to lie down during the time of his sickness, or until he falls suddenly down and dies; extremities, for the most part, cold; fever strong, and sometimes attended with a short cough, and discharge at the nostrils; mouth parched and dry; pulse, at first, generally strong and hard, afterwards more oppressed; but rising after bleeding. (See Pulse.)

The breathing is more difficult in some cases than in others, according to the degree of inflammation present, and is performed with more ease when the horse is standing. The difficulty and quickness of breathing arise from two great a quantity of blood being collected in the vessels of the lungs and branches of the windpipe: whence it happens that the air cells are lessened in size, from the increased pressure of the blood, and their capacity for air is in this way diminished; and most likely many of the air cells become closed and impervious; on account of which, as often as the animal takes his breath, not as much air is admitted into the lungs as is sufficient for them to perform their office properly; therefore the animal is obliged to breathe more frequently: the blood in the lungs now being in greater quantity, and circulating slower than in health, the free return of it from the head and neck is thereby much impeded, and hence the eyes and mucous membrane of the nose frequently look red and inflamed, and the veins of the neck swelled and distended with blood.

The cause of this disorder appears to be from cold, or whatever checks perspiration; drinking cold water after being heated by violent exercise; low or high feeding will make a horse subject to

it; a want of exercise and bleeding; when the weather is damp and cold, and the body full of blood; riding a horse deep in cold water, when he is covered with perspiration; or, while in this state, by letting him stand long in the cold; violent riding in cold and damp weather; when a horse is heated, riding him in cold water. Inflammation of the lungs, and most other inflammatory disorders, frequently arise from the perspiration being suddenly stopped when over-heated.

At first, when a horse is seized with this disease, it has been frequently mistaken for the colic; but the difference between these two disorders is considerable; for when a horse is taken with this complaint, he lies down and rolls about; his eyes are turned up; he suddenly rises again with a spring, and stamps with his feet; very rarely symptoms of fever present; short intervals of ease; cold and clammy sweats suddenly appear, which generally continue until some relief be obtained.

If the breathing in inflammation of the lungs becomes easier after the bleeding and other remedies have been employed; the horse be inclined to lay down, and looks livelier and more free from pain; feverish symptoms abate; pulse rises on bleeding: we may suppose the horse will get better.

On the contrary, should the feverish symptoms run high; breathing very difficult, and the horse appears much troubled and almost exhausted; rattling in the throat, and other bad symptoms are present: all hopes of recovery may be given up. When this disease proves fatal from its obstinacy, from being neglected, or injudiciously treated, we find, on examining the contents of the chest, the lungs inflamed, gangrenous or mortified, a watery fluid in the lungs and branches of the windpipe, or in the cavity of the chest: when the watery fluid is effused in the branches of the windpipe, the horse makes a rattling noise when he breathes, which is a very unfavourable symptom.

The importance of the parts affected requires that the remedies should be employed as early and vigorously as possible; and the remedy chiefly to be depended upon is bleeding; and the blood should be taken from a large orifice of the vein, in this disease, as well as in all other internal inflammations: when the pulse rises after each bleeding, it is a sure mark of its utility. In the first place, as soon as every symptom of inflammation of the lungs are detected, take from four to six quarts of blood from the horse, according to the violence of the symptoms, his age, condition, and constitution, and repeat it again in six or eight hours after, if

the difficulty of breathing and other bad symptoms are not much relieved; and this may be persevered with for two or three bleedings more; but in smaller quantities at each time; as one, two, or three quarts, and at shorter intervals, if difficulty of breathing, &c. require it; secondly, it will be necessary to cool the body, act upon the kidnays, and unload the intestines with the following medicines.

(RECIPE, No. 79.)

Ball for Inflammation of the Lungs.

TAKE—White antimonial powder, two drachms;
 Prepared kali, half an ounce;
 Nitre, half an ounce;
 Castile soap, two drachms;
 Aromatic confection, half an ounce;
 Beat them into a ball.

This ball must be given to the horse as soon as it can be prepared, after he has been bled; and continue it two or three times a day as long as the inflammation continues; about six hours after, give him the purging drink (No. 59, p. 87), and repeat it every night and morning until a passage is obtained, or the bowels are sufficiently opened.

The purgative drink may be assisted by administering the following clyster.

(RECIPE, No. 80.)

TAKE—Thin water gruel, four quarts;
Nitre, one ounce;
Glauber's salts, four ounces;
Linseed oil, half a pint:
Dissolve the salts in the gruel, and administer new-milk-warm.

Before the clyster is applied, a small hand must be put up the rectum, in order to bring away the hardened dung, otherwise it might impede the clyster. It may be repeated once a day till the physic operates. Blistering will assist also in removing the inflammation; therefore, after the first bleeding, apply the blistering essence (No. 133) pretty extensively over the chest, rubbing it well in, so as to blister as quickly as possible. Different authors recommend rowelling in this disease; but as it in general takes from three to four days to bring them to a proper discharge, the consequence may in that time either prove fatal, or relief may be obtained; if they are employed, the leather or horse hairs must be well anointed with blistering ointment. As soon as the horse begins to eat his corn and hay, let him have the following drink.

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(RECIPE, No. 81.)

TAKE—Peruvian bark, one ounce ; . . .
 Nitre half an ounce ;
 Ginger, fresh powdered, half an ounce :
 Mix, and give it in a pint of warm gruel.

This drink may be given every other day, for three or four times, or longer, if necessary; and the cure may be finished by giving him balls (No. 26, p. 49), every other or every third day. When improperly treated, this disease sometimes produces another, formerly called *chest-founder*, but which may be with more propriety called the *founder* in the *feet*. When the inflammation leaves the body, and is transferred to the feet, it is attended with considerable pain, that soon terminates in the founder in the feet; the treatment of which is discussed in a subsequent chapter. Throughout this disease, the stable should be rather cool than warm, never exceeding sixty degrees of Fahrenheit's thermometer; the diet must be warm water and mashes, twice a day, with regular exercise as soon as the horse is able to undertake it.

CHAP. XXIII.

BROKEN WIND.

BROKEN wind, in general, seems to be but little understood by farriers and others. Mr. Gibson says, that hasty feeding a horse for sale causes the lungs and heart to grow, and all the contents within the chest to increase so much in a few years, as to be nearly twice their natural size. It is said by Mr. Coleman to be a rupture of the air-cells of the lungs, which (I have no doubt) has been the case in many instances, and has been brought on by a determination on them from violent exercise on a full stomach.

I shall first very briefly describe how healthful respiration is performed, that I may the better explain my opinion concerning the nature of this complaint. Respiration may be defined the alternate reception and expulsion of air; when the horse takes his breath, the lungs are expanded, and therefore the cavity of the chest must be enlarged; for this purpose, the diaphragm, or midriff, descends, becomes tightened, and hence increases the dimensions of the chest length-ways, and the ribs coming forwards, and bulging outwards, in-

creases it in breadth. In expiration, the lungs collapse, the midriff is slackened and advances forwards, the muscles, between the ribs are also slackened, and allow the ribs to return back, partly by their own elasticity, and likewise by the muscles of the abdomen contracting; thus, the chest is diminished in capacity, as the lungs collapse and lessen in size. The lungs, if healthful, and supported in their proper situation, would, independent of the ribs and abdominal muscles, collapse in expiration, as well as dilate in inspiration. The lungs have been supposed to be passive organs in respiration; but they are so far passive, that they will act independent, as I have said before, of the ribs and abdominal muscles; and it is the lungs losing this function of collapsing, except by the powerful and increased agency of the expiratory muscles, that constitutes, as I suppose, broken wind. Air is admitted into the lungs of a broken-winded horse without any impediment, and the capacity for air appears not at all diminished; but there is a difficulty in expiration arising from the lungs having lost considerably their power of collapsing, and on this account requiring a greater and longer effort of the abdominal and other muscles to expel the contained air from them; and instead of being expelled gradually and almost imperceptibly, it comes now in

sudden gushes. The texture of the lungs, in those that I have examined with this complaint, was more dense, more livid, also tuberculated, and much less elastic than when unaffected with disease; and on opening the chest they were not found collapsed to the same degree as in health. This disease most commonly originates from some previous inflammation, or unusual determination of blood to these parts, which alter the texture of the lungs, such as frequent catarrhs, inflammation of the lungs, hard riding when the stomach is distended with food or water; girthing the saddle or surcingle very tight, and too far back towards the flanks; confinement in ill-ventilated stables and want of proper exercise; depraved appetite, eating litter, chaff, bad hay, &c. which afford but little nourishment, and induce a gross habit of body: any of these will occasionally give rise to this disease.

In order to cure this disease, different authors have pointed out different means, but the point has never yet been attained. A strict attention to his diet and management is indispensably required for horses in this situation; the animal must be kept up in the stable, and fed with the best hay, and a couple of mashies of scalded bran and oats every day, or a moderate allowance of

corn may be given him; carrots are also proper; and let him have half a pailful of water, three or more times a day, according to the nature of his exercise. In this affection of the lungs, the horse should always be prevented from filling his belly too full; should have regular but not violent exercise; if the weather is fine and mild, he may be turned out into the field for a few hours in the day.

Bleeding is very beneficial, particularly in the commencement of this complaint, and will, I have reason to conclude, prevent or remove this affection of the lungs in its incipient stage. This disease mostly begins with an obstinate dry cough, an unusual inclination to drink, and the horse works more than common in his flanks, but appears healthful in other respects, and can eat his meat as well as those horses that have no such disorder upon them. In these, or more advanced cases, take three quarts of blood from the horse, and let the ball (No. 23, p. 47) be given at night, and the purging ball (No. 24, p. 48) the next morning, and treat the horse as there described. After the operation of the purging ball, give him one of the following balls twice or three times a week.

(RECIPE, No. 82.)

Pectoral Balls.

TAKE—Barbadoes tar, Venice turpentine, and Castile soap, of each two ounces;
Squills, in powder, one ounce;
Calomel, three drachms:
Beat them well together; then add,
Nitre, two ounces; aniseeds and caraway seeds, fresh powdered, of each one ounce:
Beat them into a mass with honey and liquorice powder, and divide into ten balls.

The bleeding and purging may be repeated in a week or so after, and the balls (No. 82) may be continued for some time.

CHAP. XXIV.

OF THE YELLOWS, OR JAUNDICE.

THE signs of the jaundice are, costiveness, a yellow tinge in the white of the eye, and all the internal parts of the mouth; the horse is heavy, dull, and regardless of his food; his urine is of a dark, dirty, saffron colour, and when exposed to the air, sometimes looks red like blood. The dung is hard, dry, and of a pale yellow, or greenish colour: the fever is slow, and, unless checked in time, both it and the yellowness will increase.

Though the jaundice in horses is of rare occurrence, I have, in the course of my practice, had an opportunity of treating it several times; and in all the cases that I have seen, am led to conclude, from the symptoms which presented themselves, that this complaint in the horse is mostly dependant on a morbid or inflammatory action of the liver, by which the passage of the bile into the intestines is obstructed, and, being taken up into the circulating mass of fluids, constitutes the disease at present under notice. I never had reason to suppose, as some authors have asserted, that this obstruction was caused by biliary calculi; but that such may sometimes be the case I shall not deny.

My treatment then has been to remove this morbid or inflammatory action, and to restore the healthy functions of the liver; and the following remedies, made use of with these intentions, have proved successful. *First*, let the horse be bled to the quantity of three or four quarts, according to size and strength; and then give him the following purge.

(RECIPE, No. 83.)

Purgin Ball.

TAKE—Barbadoes aloes, from four to five drachms;
White antimonial powder, and Castile soap, of
each two drachms;

Calomel, one drachm :

Mix, and beat them into a ball, with a sufficient quantity of syrup of buckthorn.

The horse should have a couple of mashes the day before this ball is given, by way of preparation : and the ball should be given fasting the morning following ; let him fast for two hours after, then give him a mash of scalded bran and oats, with warm water, and treat him in the same manner as for other physic. Should the clyster (No. 12, p. 29) be administered in the space of twelve hours after the purge, it will greatly assist the latter in its operation. It will be proper to repeat this physic in the course of six or eight days. After physicking, it will be necessary to give the horse three or four of the following balls every morning, which I have of late been in the habit of ordering in this complaint.

(RECIPE, No. 84.)

TAKE—Barbadoes aloes, and Castile soap, of each one drachm and a half ;

Emetic tartar, and calomel, of each two scruples ;

Aromatic powder, two drachms :

Mix, and make into a ball, with syrup of buckthorn, or treacle.

This ball may be given every morning, for three or four times ; after which the following

balls will be found proper to finish the cure, and restore the animal to his former strength. . .

(RECIPE, No. 85.)

Restorative Balls.

TAKE—Gentian, and caraway seeds, in powder, of each three ounces;

Powdered ginger, and precipitated sulphur of antimony, of each six drachms;

Castile soap, one ounce and a half:

Honey sufficient to form into six balls.

One of these balls should be given every other day for some time. By a strict attention to this method of treatment, the horse will recover fast, which will easily be discerned by the yellow tint disappearing from his eyes and mouth, and the animal's having a more lively appearance.

CHAP. XXV.

OF ALTERATIVE MEDICINES.

BY *alterative medicines*, we understand such as have scarcely any sensible operation, but almost imperceptibly produce a change in the constitution, until the functions of the body are gradually restored to their former healthy state. Medicines of this kind are frequently given to prevent or

remove diseases, and often also to restore the animal after having been reduced by disease; but in these cases they should not be given until the violence of the symptoms are abated. The great advantage of alteratives is, that the horse may perform his accustomed labour, and likewise requires no change in his diet while under their influence. Most alterative medicines gently relax the bowels, rather increase the flow of urine, also act by the skin, and produce other salutary changes of the system.

(RECIPE, No. 86.)

Alterative Balls.

TAKE—Crocus of antimony, finely levigated; Castile soap, sliced; and nitre, in powder; of each two ounces;

Flour of sulphur, four ounces;

Soccotrine aloes, in powder, two ounces;

Tartarized antimony (emetic tartar), half an ounce:

To be beaten into a mass for balls, with honey or treacle. Each ball to weigh one ounce and a half.

These balls are calculated for horses of a gross habit of body, particularly such as are inclined to swell or grease at the heels; and are also proper for such horses as, being full fed, and standing much in the stable, have little or no exercise;

they cool the body, and restore its healthy functions, and render the animal more fit for labour. Bleeding is mostly necessary in all cases of this kind; it greatly assists the operation of the medicines. One ball may be given every day, or every other day, as may be judged requisite, and continued for some time.

(RECIPE, No. 87.)

Alterative Balls for Surfeit, Mange, &c.

TAKE—Precipitated sulphur of antimony, gentian root, and soccotrine aloes, of each one ounce, in fine powder;
Nitre, two ounces;
Calomel, and cantharides, in powder, of each two drachms:
Mix, and make them into a mass for balls, with honey or treacle. Each ball to weigh one ounce and a half.

These balls will be found very useful in many diseases; such as surfeit, hide-bound, mange, grease, or swelled legs, lameness of the joints, molten-grease, inflammation of the eyes, and, indeed, in all lingering and obstinate diseases. One ball may be given, every other morning, for a fortnight or three weeks together, as may be thought most proper: or the following may be given.

(RECIPE, No. 88.)

•
Common Alterative Balls.

TAKE—Nitre, roll sulphur, and antimony, of each four ounces, in fine powder ;

Ginger, in powder, two ounces ;

Liquorice powder, and treacle, sufficient to make them into a mass for balls. A piece of the size of a pigeon's egg, may be rolled into a ball, and given to the horse every other morning.

N. B. Medicines that are administered as alteratives, must be continued for some time before much benefit can be expected from them.

CHAP. XXVI.

OF THE MOLTEN-GREASE, OR DYSENTERY.

THIS is a common complaint amongst *coach* and *chaise* horses, during the heat in summer, and was particularly prevalent in the year 1807. This disease arises from an inflammation of the internal or villous coat of the intestines, which produces an increased secretion of the mucus, that is frequently discharged along with his dung, and gives it that glairy or slimy appearance which is the characteristic mark of the complaint: this mucus or

slimy matter of the dung was formerly supposed to be the fat of the body melted down, and discharged by the intestines, after having been absorbed by the blood-vessels; but our present improved knowledge on the subject forbids such a supposition. It is, for the most part, occasioned by violent exercise, and drinking cold water too soon after it; or from exposure to cold, and sometimes cold and wet after the horse has been overheated in hot weather; all which obstruct the perspiration, and by this means a congestion and inflammation are induced in the internal parts.

The symptoms are always attended with a fever, as the horse appearing dull, restless, breathing quickened, loss of appetite, mouth dry and hot. The dung looks generally very slimy, and commonly accompanied with scouring, and painful efforts to expel the fæces, while at the same time hardened dung is retained in the bowels; sometimes, in the beginning of the complaint, the dung is of the common consistence, and only differs in having a greasy aspect over its surface; his blood, when cold, will exhibit a buffy or straw-coloured coat on the top of the red or coagulated parts, which is the case in all internal inflammations. A skinny substance is often seen along with the dung,

slimy matter, and of the hardened fæces, which are often obstinately retained in this complaint, and they will also very much assist the bleeding, in removing the internal inflammation.

After the bowels have been thus acted upon, it will be proper to give the following ball every morning for a week, or more if required.

(RECIPE, No. 92.)

TAKE—Peruvian bark, and caraway seeds, of each six drachms;

Dover's powders, and chalk, of each two drachms:

Form into a ball with treacle.

This ball will allay irritation of the bowels, and will gradually stop the scouring; should the ball, after having given it two or three times, not have this effect, and the scouring continues bad, add half a drachm of opium to each ball, and give them, with this addition, night and morning.

When the horse is sufficiently recovered, and his appetite begins to be pretty good, it will be proper to give him the following cordial diuretic ball every other night for about a fortnight, and let him have a nourishing diet.

(RECIPE, No. 93.)

Cordial Diuretic Ball.

TAKE—Aniseeds, in powder, half an ounce;
 Ginger, powdered, two drachms;
 Emetic tartar, one drachm and a half;
 Venice turpentine, half an ounce;
 Honey or treacle sufficient to form into a ball.

Throughout this complaint the stable should be moderately ventilated, to prevent it becoming hot, and the horse should be clothed, so as to keep the surface of the body warm; the water you give him should be warm. By strict attention to these rules, the swelling upon his legs will soon subside, and nature return to her former state again. Should, however, the horse be poor, or lean of flesh, and inclining to be hidebound, or suffed, it will be proper to give him two or three of the drinks (No. 46, p. 72); or, if thought more proper, one of the alterative balls (No. 87, p. 123) may be given every morning after he returns from exercise. The observations here laid down will enable every person of ability to manage the disease through every stage.

CHAP. XXVII.

INFLAMMATION OF THE KIDNEYS, INFLAMMATION
OF THE BLADDER, AND PROFUSE STALING.

DISEASES of the urinary organs, as the kidneys and bladder, do not unfrequently occur in the horse; and when they do, are, without much difficulty, distinguished from other diseases by the symptoms mentioned in this chapter. The kidneys perform the important office of secreting the urine from the blood, and are therefore organs very essential to life; when their functions are impaired by disease, the urine becomes altered in quantity and appearance, and the general health of the animal is soon affected.

I shall first describe *inflammation* of the *kidneys*, which is known to exist by the following symptoms: the horse appears dull and feverish; loss of appetite; he flinches, if his loins are pressed rather forcibly with the fingers, or by any thing else; the urine he stales is in small quantities, highly coloured, and turbid; and sometimes bloody, particularly when the inflammation arises from external

injuries; the horse commonly stands, as if inclined to stale; pulse hard and frequent. . . .

The chief causes inducing this complaint are, contusions of the loins; hard riding and unskilful horseman; too strong diuretics; and also by a fever having been transferred to these parts.

As soon as the disease is first discovered, take from three to four quarts of blood from him, and give the following ball soon after, and a pint of castor oil.

(RECIPE, No. 91.)

Purgative Ball for Inflammation of the Kidneys.

· TAKE—Barbadoes aloes, three drachms;
 Gum arabic, in powder, two drachms;
 Tartarised antimony, one drachm;
 Syrup of buckthorn, sufficient to form into a ball.

This ball may be repeated every other morning, if it only keeps the bowels gently open, without the castor oil; and the clyster (No. 91, p. 127) must be administered twice a day, in the same way as (No. 12, p. 29). This will greatly assist the operation of the ball, and likewise act as a fomentation to the inflamed parts. If the fever or inflammation continue to increase, and his urine appears high-coloured, or bloody, and comes from

him in small quantities, attended with difficulty, it will in such case be proper to take one or two quarts of blood from him every day, or every other day. As soon as the body has been sufficiently opened, let him have the following ball.

(RECIPE, No. 95.)

Compound Fever Ball.

TAKE—White antimonial powder; gum arabic, in powder; and Castile soap, of each two drachms; Camphor, one drachm:

Make into a ball, with conserve of hips; add a few drops of spirit of wine to the camphor, which will make it pulverise. One to be given every night and morning.

This ball must be continued *twice* a day until the symptoms begin to abate; afterwards once a day will be sufficient. Let him be fomented across the loins twice a day with hot flannels wrung out of the fomentation (No. 40, p. 66), and after let the part be well rubbed with the following

(RECIPE, No. 96.)

TAKE—Flour of mustard, four ounces;

Euphorbium, in powder, half an ounce;

Water of pure ammoniac, two ounces;

Vinegar, a sufficient quantity to form into a thinnish paste.

This stimulating application must be well rubbed on the loins, where the kidneys are situated, for the space of ten minutes, after the fomentation has been used.

The horse in this complaint must be kept warm with a rug, and the water you give him should be warm, and let him have warm mashes twice a day. He should not be allowed much water in this disease, as it would tend to stimulate the kidneys, and by this means aggravate the symptoms; and you must particularly avoid giving him diuretic medicines, as these stimulate the kidneys too much: when the inflammation is subdued, you may give the horse, with advantage, half an ounce of nitre, twice a day, for a few days.

Inflammation of the Bladder.—Inflammation of this organ increases its sensibility and irritability so much, that the bladder cannot retain its usual quantity of urine; hence the horse is frequently staling in small quantities, and with difficulty; there is a frequent inclination to dung, arising from nervous sympathy between these parts; if the hand is introduced into the rectum, and pressed downwards, it gives pain, and the parts feel hotter than usual.

The causes giving rise to this complaint are, hard and long-continued riding, and not giving the horse an opportunity to stale, and thus the bladder becomes distended with urine; external injuries from staking and contusions; cantharides improperly given to stallions sometimes produce it; stone in the bladder also.

The same treatment is required in this disease, as prescribed above for inflammation of the kidneys; viz. bleeding, mild purgatives, clysters, fomentations, &c.

Profuse Staling.—This disease, I was informed by a friend, prevailed very much among our military horses during the late Spanish campaign, and was attributed to their drinking stagnant waters, and want of good provender; and also the great fatigue the horses occasionally underwent. Diuretic medicines may sometimes produce it. I have only seen three cases of this disease; two of which fell under my care.

The symptoms of profuse staling are, a copious and frequent staling of limpid or turbid urine, as much to exceed the usual quantity; great thirst; bowels mostly costive; and the horse is much weakened, and reduced in flesh. In both the

cases that treated, the following astringent ball was given with perfect success. . . .

(RECIPE, No. 97.)

Astringent Ball for profuse Staling.

TAKE—Galls, and alum, in fine powder, of each two drachms;
Peruvian bark, half an ounce:
Make into a ball, with honey or treacle.

It will be proper to repeat this ball every morning, and if the disease is obstinate, every night and morning, and continue until the urine is diminished to about its natural quantity. The following restorative ball may be given, if required, for three or four times or more, after the astringent ball is discontinued.

(RECIPE, No. 98.)

Restorative Ball.

TAKE—Gentian root, in powder, half an ounce;
Ginger, powdered, two drachms;
Alum, one drachm:
Treacle, sufficient to make into a ball.

CHAP. XXVIII.

OF WORMS.

THE worms, which are common to horses, are, the *bots*, *teretes*, or round worms, and the *ascarides*.

Bots infest the stomach, and are distinguished from the two other species by their length, being scarcely an inch, and of an oval form, and of a reddish colour, having two hooks at their smaller extremity, by which they adhere strongly to the coats of the stomach, and also very short feet along the sides of their bellies; they are composed of ten or twelve circular rings, or joints: their mouth is supposed by La Fosse to be situated between the two small hooks. There are two varieties of bots—the one we have mentioned, and another which differs merely in being of a paler colour, and smaller. Bots, in general, appear in the months of May, June, or July, and occasionally produce much constitutional irritation, and sometimes, by ulcerating the coats of the stomach, destroy the animal. The symptoms indicating bots in horses are few; they are first discovered in the dung, and

are frequently seen sticking to the straight gut, near the fundament, from whence they are often forced off with the dung. The animal generally looks lean, and his hair stares like that of a surfeited horse. He frequently strikes his hind feet against his belly, and, in many respects, appears like one that is griped. I have known horses at the latter end of a dry summer (when the ponds, or springs, have been very low, and the water become muddy, by reason of cattle standing in them, and filled with swarms of insects), to be much infected with bots in the stomach; which is the chief cause why so many hundreds of them die in the low, fenny, and marshy counties.

The *teretes*, or round worms, resemble the common earth-worm in appearance: they are usually white, about eight or ten inches long, and are generally found in the small intestines. They are not so common as the bots, but are often more dangerous, and frequently are the cause of the colic and inflammation of the bowels.

Ascarides are found in the large intestines; they keep a horse poor, but are seldom fatal. Both these kinds of worms are frequently voided with the dung. The treatment in all the three kinds must be similar, and a cure may¹ be effected by a

due attention to the application of the following medicines.

(RECIPE, No. 99.)

Mercurial Ball.

TAKE—Calomel, and Castile soap, of each one drachm ;
Worm-seed, in powder, half an ounce :
Beat them into a ball with syrup of buckthorn.

This ball should be given at night, and the following drink, or purging ball, the next morning.

(RECIPE, No. 100.)

A Drink for the Worms.

TAKE—Barbadoes aloes, from three to six drachms
(according to size and strength);
Worm-seed, and gentian, in powder, of each
half an ounce;
Caraway seeds, in powder, one ounce :
Mix, and give in a pint of strong decoction of
wormwood, and repeat in about four or five
days; but omit giving the mercurial ball after
the first time.

If a ball be preferred, the following is an excellent form.

(RECIPE, No. 101.)

A Purging Ball for the Worms.

TAKE—Barbadoes aloes, eight drachms ;
Ginger, Castile soap, and oil of savin, of each
two drachms :
Syrup of buckthorn, sufficient to make them into
a ball.

This ^{*}purge is calculated for a strong horse ; but it may be made weaker, by lessening the quantity of aloes to six or seven drachms, which are, in general, sufficient after a mercurial ball. The horse should have mashes, warm water, and proper exercise, conformably to the rules laid down in Chap. V. on purging (p. 18).

The above purging, and mercurial ball, may be repeated once a week, for three or four times, which will effectually destroy and carry off all the different kinds of worms in the stomach, bowels, or intestines. After the destruction of these kinds of vermin, as the horse's appetite and digestion are generally weak and bad, the following drink must be given, in order to strengthen the stomach, and promote digestion.

(RECIPE, No. 102.)

Stomach Drink.

TAKE—Compound spirits of ammonia, and sweet spirit of nitre, of each one ounce;
Gentian root, in powder, one ounce and a half;
Peruvian bark, and hiera picra, in powder, of each half an ounce;
Horse-spice, two ounces:
Mix the whole in three pints of ale, and divide into three parts, and give one every morning fasting.

Two hours after, give him a mash and warm water. The virtues of this drink deserve the highest commendation in restoring those horses which have been much reduced by some long-continued disease: as in lowness of spirits; debility, and relaxation of the solids; a loss of appetite; and for such also as are over-ridden, either in the field, or on the road.

CHAP. XXIX.

DIARRHŒA, OR LOOSENESS.

HORSES are not so liable to this disease as many other animals ; yet persons who are in considerable practice frequently meet with cases of this kind. Diarrhœa may proceed either from an increased secretion of bile, or from the want of a proper absorption of the fluid part of the fæces. The dung, for the most part, appears in a liquid form ; and on every little exertion he is constantly voiding it in small quantities. This disease often proceeds from cold, hard-riding, over-feeding, or from eating unwholesome food ; and sometimes from a morbid change in the secretions of the stomach and intestines. It may also be occasioned by a sudden check of perspiration, or by taking cold. It may be distinguished from molten-grease, by the dung being more copious and liquid, and not having that slimy appearance, but looks like the natural dung, only more liquid, and also from there being little or no fever in diarrhœa (see Fever), and not attended with those painful efforts to expel the contents of the bowels, as what there is in molten-grease ; and moreover, diarrhœa is more common in winter and cold weather, which is not the case

with molten-grease. In curing this disease, you must keep the horse's body warm with a rug, and the stable should be moderately warm, and the following drink must be exhibited twice a day, until the purging is stopped.

(RECIPE, No. 103.)

Drink to stop Looseness.

TAKE—Prepared chalk, two ounces;
Aniseeds, and caraway seeds, in powder, of each,
one ounce;
Opium, half a drachm:
Mix, and give in a pint of linseed gruel.

If the looseness continue, after the above drink has been administered for two or three days, the following astringent drink may be given.

(RECIPE, No. 104.)

Astringent Drink.

TAKE—Pomegranate shell, in powder, and prepared testaceous powder, of each one ounce;
Dover's powders, and ginger powdered, of each two drachms:
Mix, and give in a pint of warm gruel, and repeat twice a day.

After the diarrhœa is checked by the above medicines, if the horse should be much reduced,

give him the following ball, and repeat it every day, until he is sufficiently recovered.

(RECIPE, No. 105.)

TAKE—Columbo root, and Peruvian bark, in powder,
of each half an ounce;
Ginger, and subcarbonate of soda, of each one
drachm:
Honey, or treacle, sufficient to form into a ball.

CHAP. XXX.

SPRAINS IN VARIOUS PARTS.

SPRAINS are accidents that frequently happen to horses of every description, and it is highly necessary that every person concerned with them should be acquainted with their nature and cure. Sprains, for the most part, proceed from a forcible extension of the muscles, or of the tendons, and sometimes of the ligaments; and are attended with a degree of local inflammation, more or less, according to the violence of the complaint.

The following symptoms indicate a horse to be sprained in the *shoulder*. If trotted, he cannot get his leg forward with the other, but forms a circle with it; if it be attempted to run him up hill, it is with the greatest difficulty that he can

move it at all: likewise, when he stands in the stable he seldom favours that foot more than the other; but if the lameness be in the foot or sinews, he will be constantly attempting to ease it by putting his feet forward.

In order to cure this lameness, first bleed him in the plate vein, and then rub his shoulder once or twice a day with the following embrocation.

(RECIPÉ, No. 106.)

Embrocation for Sprains.

TAKE—Soap liniment and camphorated spirits of wine,
of each eight ounces;
Oil of turpentine, half an ounce:
Mix, and shake when used.

This evaporating and discutient embrocation is well calculated to remove pain and inflammation, which is generally effected in the course of a fortnight or three weeks: during that time the horse should not be allowed to go out of the stable or farm-yard; after which, the following bracing mixture must be rubbed on the part once a day.

(RECIPE, No. 107.)

Bracing Mixture for Sprains.

TAKE—Egyptiacum, two ounces;
Oil of turpentine, one ounce, shake well together; then add,
Camphorated spirit of wine, and compound tincture of benzoin, of each one ounce;
Vinegar, eleven ounces:
Mix, and shake well together every time they are used.

This last mixture is a great bracer, and therefore better calculated to strengthen the parts after the inflammation has been removed by the mixture (No. 123, p. 161). They are both excellent recipes for all kinds of sprains; whether old or recent, especially those in the shoulder, stifle, whirlbone, and, in many cases, those of the coffin-joint; this last, however, frequently requires more powerful treatment, such as blistering. A poultice made of bean meal, or rye flour, and old verjuice, boiled together, with a lump of hog's lard, or a sufficient quantity of sweet oil afterwards added, may be applied when inflammation exists, or fomented with (see Recipe 123, p. 161), as there directed. Sprains and bruises on the *back sinews* are easily discovered by the swelling or inflammation, which extends from the back side of the knee down to

the heel; by the lame leg appearing thicker than the other; or by a pressure of the finger and thumb on the part affected, which will make him flinch by the pain thereby occasioned. In this case let the tendon, from the knee to the fetlock-joint, be well rubbed with the following mixture.

(RECIPE, No. 108.)

Bracing Mixture for Sprains.

TAKE—Old verjuice, or good wine vinegar, one quart;
Camphorated spirit of wine, four ounces;
Water of acetated litharge (formerly called
Goulard water), two ounces;
Spirit of turpentine, two ounces:
Mix, and put them in a bottle for use.

This mixture will cool and brace the parts greatly. After it has been well rubbed in on the part affected, take a linen bandage, or roller, two or three yards long, and apply it round the leg, upon the swelled tendon, and keep it moistened with vinegar and water, of each equal parts. If the swelling and inflammation be considerable upon and about the sinews, let the part affected be fomented twice a day with the following fomentation.

(RECIPE, No. 109.)

TAKE—Muriate of ammonia (sal ammoniac), and nitrate of potass (salt petre) of each one ounce ;
 Verjuice, or strong vinegar, two quarts ;
 Water, one quart :
 Let the water be made hot, to dissolve the salts, and it will be ready for use.

This fomentation will be found excellent for dispersing all inflammatory swellings upon the sinews, or any other tendonous parts. After the parts have been well fomented with hot flannels wrung out of it, for the space of a quarter of an hour, in the course of three or four hours after rub the part well with the mixture (No. 108, p. 146), and afterwards apply a flannel bandage, rolled round the leg, from the knee to the fetlock. The horse should be confined to the stable while the inflammation continues. Horses frequently receive injuries about the knees and pasterns, from kicks or blows, which they are liable to from the groom, or other horses ; and which are easily cured by rubbing the part with the following cheap astringent mixture.

(RECIPE, No. 110.)

TAKE—Vinegar or verjuice, eight ounces ;
 Spirit of turpentine, one ounce ;
 Water of pure ammonia, two ounces ;
 Acetated litharge, one ounce ;
 Bole armenic, half an ounce :
 Mix them in a bottle for use.

It will be proper to rub the part affected with this mixture once or twice a day. After the inflammation and swelling have disappeared, there are frequently left behind very obstinate calluses, which must be removed by blistering the part with one of the following blistering ointments.

(RECIPE, No. 111.)

Mild Astringent Blister.

TAKE—Ointment of yellow resin, four ounces ;
Blistering flies, in fine powder, one ounce ;
Euphorbium, in fine powder, half an ounce ;
Sulphate of copper, in powder, two drachms ;
Strong mercurial ointment, one ounce :
Mix the powders with the ointments previously melted, and stir until the mixture stiffens in cooling.

This is a powerful blister in its effects, but mild in its operation, and is well calculated to remove calluses ; but for more obstinate cases the following may be preferable.

(RECIPE, No. 112.)

Strong Mercurial Blister.

TAKE—Tar, hog's lard, and bees' wax, of each three ounces ; melt all together ;
Then add Corrosive sublimate, euphorbium, and

cantharides, of each half an ounce, in fine powder ;

Oil of turpentine, two ounces :

Mix them all together, and stir them till nearly cold.

Before either of these blistering ointments is used, all the hair must be entirely clipped off from the callus, and the ointment be gradually rubbed in with a spatula, or a dull case-knife. After the first time of using the ointment, it must be rubbed in with the fingers, and repeated every morning for three times ; but, in cases of long standing, it may be rubbed on for six or seven mornings together. When the ointment is applied, the horse's head must be tied to the rack, to prevent him from gnawing the place with his teeth ; and the litter must be taken away to hinder him from rubbing the blister off before it takes effect, which is generally in six or eight hours. When the blister has ceased to run, or on the third day after you have done rubbing him, he may be turned out to grass for two or three months : and if the callus be not sufficiently reduced in that time, he must be taken from his pasture, and the blistering ointment be repeated as before. After this manner it may be repeated until the cure is completed.

The above blistering ointment (No. 112, p. 148)

is very powerful in removing pain, and dispersing callous tumours, either on the sinews, or hock, splints, and bone spavins, though ever so obstinate or long standing, if repeated as above directed.

If race-horses, after a hard race, or hunters, after a severe run, or post-horses after a hard day, were to be well rubbed down with a wisp of straw, and then their relaxed sinews bathed with vinegar, and again the legs gently rubbed with the palm of the hand, until they are dry, it would cool and brace them, and keep off inflammation.

CHAP. XXXI.

ON FIRING.

FIRING may be usefully employed, in order to strengthen and brace the relaxed sinews, but should never be applied till the swelling or inflammation is entirely removed. The firing irons must be smooth, thin, and fine on the edge; and the lines on the sinews five in number; one down the main tendon, and two on each side, about the distance of an inch from each other. The cross, or inclining lines, must be at the distance of three quarters of an inch from each other; and the

thinner and finer the irons are, the neater will be the work.

Great care must be taken not to fire through the skin, which would greatly blemish the horse, and run the hazard of laming him, particularly if near any tendon. The day after he is fired, the following blister must be used.

(RECIPE, No. 113.)

Blistering Ointment.

TAKE—Bees' wax, six ounces;
Hog's lard, two ounces;
Train oil, half a pint;
Common turpentine, six ounces:
Simmer them over a slow fire till dissolved,
then put them in a jar, and add spirits of
turpentine four ounces;
Corrosive sublimate, in powder, half an ounce;
Euphorbium and cantharides, of each one
ounce, in powder:
Stir, and when nearly cold, add half an ounce
of oil of vitriol; then stir the whole together
until it stiffens.

This is a most excellent ointment for all purposes where blisters are required. After firing, this ointment requires nothing more than spreading all over the part with a spatula every morning for three times. In the course of three days, or as

soon as the blister has ceased to run, let him be turned out to grass for three weeks or a month, until the scurf comes off, when he may be fetched home, and the following blistering charge may be applied over the part.

(RECIPE, No. 114.)

A Blistering Charge.

TAKE—Burgundy pitch, and black pitch, of each half a pound;
Oxycroccum plaster, four ounces;
Mercurial plaster, two ounces;
Melt them all together: then add, blistering ointment (No. 113. p. 151), two ounces:
Mix, and stir them well together.

This blistering charge must be spread all over the part affected whilst new-milk-warm; and a piece of flannel should be applied over the part whilst the charge is warm, and sewed on the fore part of the leg. The blistering ointment being applied first, and the charge at proper intervals, will remove all obstinate calluses, or lumps, either before firing, or after, though of ever so long standing. But if the horse is fired, merely for the purpose of strengthening and bracing the sinews, or joints, it will not require the above treatment.

The following strengthening charge will be

quite sufficient for every purpose, where the bracing and strengthening of the parts are the objects in view.

(RECIPE, No. 115.)

Strengthening Charge.

TAKE—White pitch, and black pitch, of each half a pound;

Oxycroccum plaster, paracelsus plaster, and compound plaster of litharge, of each two ounces:

Melt them all together, and apply it as the former charge.

When a charge is repeated, the hair is generally sufficiently grown to have it applied without a flannel bandage; instead of which use short wool, or dyer's flocks, and apply them upon the charge, after it is spread upon the part, before it grows cold.

CHAP. XXXII.

WOUNDS IN VARIOUS PARTS.

WOUNDS are of various kinds, and differently situated; some are caused by cutting or pricking with a fork, or any other instrument; and others by the horse bruising, tearing, or staking himself upon fences.

The first operation necessary to be done is, to cleanse the wound from all dirt, clotted blood, or any other extraneous matter. Then carefully search the wound with a probe, candle, or the finger, in order to find its extent; and if the entrance of the wound be too small to admit the finger, the skin must be cut open. Wounds received by horses kept for hunting, or by those which are apt to leap over fencing, are frequently very considerable, even sufficient to admit the whole hand which, *in this case*, may be introduced; and if any extraneous body be left behind, it must be carefully removed.

If the horse has received any wounds from these causes, it will be proper to examine the place where the accident happened, in order that the operator may be better able to judge of the nature and extent of the wounds and its consequences.

In cases where wounds are out of the reach of the finger to examine them, and are not sufficiently wide to admit the hand, I have always found a candle to be more suitable for the purpose than any instrument, the wound being less liable to receive injury from it than from any other thing. Wounds made with a cutting instrument, and which are not attended with any bruise or laceration, may, for the most part, be healed by the first intention. If it be on a part where a roller can be properly applied, it may be neatly sewed together, and a pledget of lint dipped in the following compound tincture.

(RECIPE, No. 116.)

TAKE—Compound tincture of benzoin, and tincture of aloes, with myrrh, of each one ounce ;
Nitrous acid, two drachms :
Mix in a bottle for use.

This will be found a valuable tincture for wounds of every description, where a cure is intended to be performed without bringing it to a state of supuration. If the wound bleed considerably, from an incision of some artery, or vein, and in a part where a roller, or a bandage, cannot be applied, let the mouth of the artery be dressed with a skewer dipped in oil of vitriol. It is proper to dress all wounds that are made in a fleshy part, at

the first time of dressing (before the digestive is applied), with the aforesaid styptic, which not only assists in removing the bruised and putrid flesh, but instantly puts a stop to the gangrenous disposition of the wound. As, however, profuse bleeding in wounds cannot always be stopped by the above application, the following may be advantageously applied for the purpose.

(RECIPE, No. 117.)

A Paste to stop Bleeding.

TAKE—Fresh nettles, one handful, bruise them in a mortar;

Add blue vitriol, in powder, four ounces ;

Wheaten flour, two ounces ;

Wine vinegar, two ounces ;

Oil of vitriol, half an ounce :

Beat them all together into a paste.

Let the wound be filled up with this paste, and a proper pledget of tow laid over the mouth, in order to prevent it from falling out, and then bandage it on with a strong roller. This dressing must remain in the wound ten or twelve hours, then remove it, and dress with one of the following digestive oils, or the ointment.

(RECIPE, No. 118.)

Digestive Ointment.

TAKE—Yellow basilicon, and marshmallow ointment,
of each four ounces;
Oil of turpentine, one ounce:
Mix.

Let this ointment be made warm before the wounds are dressed with it.

The following digestive oils the author has prescribed of late, and he thinks they will be found more expeditious in bringing the wounds to a state of suppuration.

(RECIPE, No. 119.)

Digestive or mixed Oils for Wounds.

TAKE—Common turpentine, four ounces;
Barbadoes tar, two ounces;
Linseed oil, one quart: mix well together
over the fire; and afterwards add,
Oil of turpentine, half a pint;
Tincture of myrrh, four ounces;
Strong mixture (No. 160, p. 216), six ounces:
Mix, and put in a bottle for use.

The manner of using these oils is as follows:
for wounds in the abdomen, where the intestines
are exposed, once dressing will, in general, be

sufficient. The oils must be plentifully applied ; the wound stitched up, and afterwards secured with a pledget or two, and a bandage or roller. Wounds on a fleshy part must have the oils poured to the bottom, or otherwise introduced into the wound by a tent or pledget of tow, well soaked in them ; afterwards rub them well all round the wound where necessary ; repeat the dressings once a day, or every other day, as may be thought proper. The inflammatory swelling which surrounds the wound, must be well rubbed twice a day with the same digestive oils (with these oils I have made wonderful cures in horses that have been staked), or the following oils.

(RECIPE, No. 120.)

Mixed Oils for Wounds.

TAKE—Neatsfoot oil, one pint ;
Oil of turpentine, six ounces ;
Oil of origanum, half an ounce ;
Oil of vitriol, one ounce :
Mix them together in a pot, adding the vitriol by a little at a time, and keep constantly stirring till united ; then put it in a bottle for use.

The stitches across the wound must be cut in three or four days, and then dressed with a small tent of tow dipped in the digestive (No. 118, p.

157), or (No. 119, p. 157), and passed sufficiently up the wound. This may be done once a day until the swelling subsides, and the wound discharges a thick white matter. After that it will not require to be tented any longer. If, however, the lips of the wound appear wide and gaping, let it be dressed with a feather dipped in the compound tincture (No. 116, p. 155), and afterwards sprinkle on the part an equal quantity of powdered verdigris, and bole armenic: this will both heal the wound, and prevent superfluous flesh from rising.

(RECIPE, No. 121.)

Digestive Ointment.

TAKE—Resinous ointment, eight ounces;

Verdigris, in fine powder, two drachms:

Melt the ointment, and sprinkle in the verdigris, and stir until the mixture stiffens.

This is a very good digestive ointment for fresh wounds. When it is used, a proper quantity must be melted in an iron ladle, and poured, *while warm*, into the wound; or, otherwise, a tent of tow may be dipped therein, and passed up the wound: the smaller the tent is, in proportion to the wound, the more medicine it will carry along with it. Fresh wounds should never be tented longer than until a good matter appears; except

in some cases, a small tent may be put into the mouth of the wound once or twice a week, in order to keep it open while the bottom part heals. Wounds that require stitching must be sewn with a *fine thread of white leather*, which is much better than either silk or common thread; the former will not cut the flesh and skin as the latter does. The stitches should be two or three inches from each other, and the needle bent in the shape of an half-moon. Many fine horses are entirely ruined by tenting the wound, or forcing in one piece of hurds after another (dipped in a little melted hog's lard and turpentine), with a couple of canes, or sticks. This injudicious application blocks up the matter, and renders the wound foul, ulcerated, and callous, so that it often proves both tedious and difficult to cure. When the swelling and inflammation about the wound are very considerable, and the colour of the fluid discharged from the same is of a dark brown, we know that a gangrene has taken place; and if it becomes black, flaccid, and insensible about the part, and also loses heat before a suppuration takes place, acquiring a putrid smell, it may be concluded that a complete mortification has taken place. Under circumstances of this kind the most powerful medicines must expeditiously be applied.

(RECIPE, No. 122.)

Caustic Oils.

TAKE—Blistering ointment (No. 113, p. 151), one ounce ;
Digestive oils (No. 119, p. 157), two ounces ;
Mix well together ; then add, by degrees,
Oil of vitriol, half an ounce by weight ; and,
lastly, add
Oil of turpentine, one ounce :
And mix well.

Let the wound be well dressed with this mixture ; and afterwards take four ounces of the digestive ointment (No. 118, p. 157), and two drachms of cantharides, in powder ; melt the ointment, and mix in the cantharides, and pour them warm into the wound : then foment the part with the following

(RECIPE, No. 123.)

Fomentation.

TAKE—Camomile flowers, half a pound ;
Poppy heads, twelve in number ; bruise them ;
Three gallons of ale dregs, or water :
Boil them, and foment the part with hot flannels
wrung out of it.

After the part has been properly fomented, the following blistering oils may be well rubbed in on the part affected.

(RECIPE, No. 124.)

TAKE—Linseed oil, half a pint ;
Spirit of turpentine, two ounces ;
Cantharides, in powder, half an ounce ;
Euphorbium, in powder, two drachms :
Mix, and shake them in a bottle for use.

These blistering oils are excellent for inflammatory swellings, and external wounds, for the prevention of mortification. They may be rubbed on (after the part has been fomented) twice a day, till such time as the swelling abates, and the matter, discharged from the wound, is of a proper consistency. The following black ointment I have frequently found very efficacious in checking the gangrene disposition of wounds ; and if two drachms of powdered cantharides be added to six ounces of the ointment, they will make it more efficacious.

(RECIPE, No. 125.)

TAKE—Hog's lard, eight pounds ;
Spirit of turpentine, half a pint ;
Oil of vitriol, two ounces :
Mix them together by a little at a time, lest they should take fire. •

This ointment will be found very useful in all kinds of imposthumes, or inflammatory swellings

about wounds. It will likewise be proper to give the horse the following drink once or twice a day until the wound begins to suppurate, or a proper matter be formed.

(RECIPE, No. 126.)

Tonic or Stomachic Drink.

TAKE—Best yellow bark; and
Caraway seeds, in powder, of each one ounce
Mithridate; and
Tincture of opium (laudanum), of each half an ounce :
Mix, and give it in a pint of warm ale.

When the inflammation is considerable, and the horse becomes feverish, inclining to a costive habit of body, give him the purging drink (No. 59, p. 87). Let the clyster (No. 16, p. 33), also be injected up the rectum once a day, until his body is sufficiently open. By strict attention to these rules the practitioner will, in most cases, be able to perform cures.

CHAP. XXXIII.

OF WOUNDS IN THE ELBOW, STIFLE-JOINT, &c.

WOUNDS on the lower limbs, as the elbow, stifle, hock, knee, and the fetlock-joint, as well as those upon the sinews, or the tendons, *should never be dressed either with oils, ointments, or any other thing of a greasy nature*, except in cases that are attended with considerable inflammation; but should be treated with healing and bracing medicines, such as the following :

(RECIPE, No. 127.)

Compound Tincture.

TAKE—Mel Egyptiacum, four ounces ;

Tincture of benzoin (or Friar's balsam), two ounces ;

Spirits of turpentine, half an ounce :

Mix them together in a bottle for use.

This must be forced into the wound with a syringe, and a small pledget of lint, or fine tow, ought immediately to be applied over the mouth of the wound, in order to keep in the medicine ; and a plaster of the ointment (No. 121, p. 159),

should be spread on tow, or hurds, and applied over the whole (to keep it from growing dry), which must be bandaged on with a flannel roller, though, if the part be free from swelling or inflammation, a linen one will be much better.

Wounds in the *stifle* or *elbow*, are very difficult to bandage with a roller; instead of which, let a small tent of lint, or tow, be dipped in the above mixture, and put into the wounds once or twice a day, with a probe, or a crow's quill. Wounds in these parts should never be tented longer than until the matter begins to decrease. But if the swelling and inflammation be considerable, let the part affected be fomented three or four times a day with the fomentation (No. 109, p. 147), and afterwards rubbed well with the liniment (No. 65, p. 92), and take from two to four quarts of blood from him, and give the purging ball (No. 2 or 3, p. 22), observing the necessary precautions laid down there.

Wounds upon the *sinews*, or *tendon*, may be dressed with the compound tincture (No. 116, p. 155). By a strict application to the above method of treatment, every person of common ability may perform a cure on all *fresh* wounds; but if they are of long standing the bottom carious, and

the synovia, or joint-oil, runs out, they must be treated in the manner directed in the following chapter, for humours oozing from the joints, called joint-oil.

CHAP. XXXIV.

HUMOURS OOZING FROM THE JOINTS, COMMONLY CALLED JOINT-OIL (SYNOVIA).

THESE species of wounds are but little understood by writers on farriery, in general. When the capsula, or ligamental purse, which surrounds the joint, is divided, so that the synovia, or joint-oil, flows from the wound, the first thing to be done, in cases of this kind, is to close the wound as soon as possible ; this may be done by the actual cautery, but it must be only on punctured wounds, and those of a slight nature. This is done with a budding iron, or with any smooth pointed iron. Great care must be taken in using this instrument, for only the external surface of the wound should be seared. Immediately after apply a pledget of lint dipped in the compound tincture (No. 116, p. 155), and fasten it properly with a roller.

Wounds in the joints that are of long conti-

nuance, and the mouth of which is wide, are not to be cured by the actual cautery, but must be treated as follows.

(RECIPE, No. 128.)

Humours oozing from Joints, &c.

TAKE—Egyptiacum, compound tincture of myrrh, of each four ounces :
Mix well in a bottle for use.

Or,

(RECIPE, No. 129.)

TAKE—Corrosive sublimate, one drachm ;
Blue vitriol, and sugar of lead, of each two drachms, all in powder :
Tincture of myrrh, four ounces ;
Spirit of salt (muriatic acid), two drachms :
Mix them together in a vial for use.

Either of the mixtures will be found very powerful in stopping the flow of the synovia, or joint-oil : the former is the mildest of the two, and, in most cases, will answer every purpose ; but when the flow is of long standing, and the bone becomes carious, the latter may be more powerful in cleansing ulcers of this description. Medicines of this class should never be used longer than until the ulcer is thoroughly cleansed, after which the following styptic tincture will be sufficient.

(RECIPE, No. 130.)

TAKE—Styptic tincture (No. 160, p. 216, Recipe);
tincture of myrrh, of each three ounces :
Mix in a bottle for use.

The method of using these mixtures is as follows:

Let a sufficient quantity of any one of them be poured into a gallypot, and thrown into the wound, by means of a syringe, twice a day, for a day or two, and immediately apply a pledget of lint, dipped in the same mixture, over the mouth of the wound, in order to keep the dressing in; then bandage the part tight with a proper compress and roller; afterward dress the wound with a feather dipped in the mixture once a day, and apply the lint and bandage as before.

Wounds upon the *knees* are the most difficult to heal, in consequence of their being more exposed to bruises than any other limb. Where the cartilage or bone is not eroded (which may easily be discovered by introducing a probe), the most gentle means must be used to effect a cure: the above mixture (No. 130), will, in most cases, be sufficient. Whenever the parts are swelled and inflamed, which is chiefly the case when the in-

jury is first received, let the inflamed part be frequently fomented with the recipe (No. 109, p. 147) for half an hour, and in two or three hours after with the following :

(RECIPE, No. 131.)

Cooling and Bracing Mixture.

TAKE—Sal ammoniac, and nitre, of each half an ounce,
in powder ;
Wine vinegar, or old verjuice, half a pint ;
Camphorated spirit, two ounces :
Mix them together in a bottle for use.

After this mixture has been well rubbed in, and the wound dressed with any of the aforesaid mixtures, and the dressing well secured with a proper roller, and *persevered in*, there is but little doubt but a speedy cure will be obtained. In all kind of ulcers attention should be paid to the morbid habit of body with which they are generally attended. Bleeding and physic are the proper means to correct this, and likewise to lessen the inflammation. First, therefore, bleed, and give the horse a couple of mashes of scalded bran and warm water that day, the next morning give him the purging ball (No. 2 or 3, p. 22), and treat him as there directed. Wounds upon the joints, in general, leave a stiffness, which may be removed by applying the blistering oils (No. 113, p. 151), or the

mild astringent blistering ointment (No. 111, p. 148). Either of these blisters will be found sufficient, and must be applied as above directed.

CHAP. XXXV.

OF ULCERS.

IT may be needless here to enter into a long description of ulcers, as these are more particularly treated of, in the sections on poll-evil, fistulous withers, &c. By the term *ulcer* is meant, when the softer parts of the body are taken up into the circulating system, by the increased action of the absorbent vessels, which absorption produces a sore or chasm of the part, and this is accompanied with the formation of matter, sanies, or some vitiated discharge; when ulceration affects the bones, it is called *caries*; and there generally occurs, when bones become diseased, an offensive ichorous discharge, and a change in the texture of the bone. Ulcers or wounds so situated, are very often troublesome to treat. The method of cure is, first to remove the caries, by cutting it clean out with a knife, or otherwise by eating it out with caustics: in the former case the bleeding may be stopped by covering the part over

with the following escharotic powders : take blue vitriol, and wheaten flour, of each equal parts mixed well together, to be secured on the wound with a pledget of tow, bandaged on with a roller ; this dressing may remain on for about three days ; afterwards clean it well, and dress it by sprinkling a little of the escharotic powders on the digestive ointment or oils (No. 121, p. 159, or No. 119, p. 157) according to the condition or appearance of the wound. See Chap. XXX. p. 143 (*for wounds in various parts*). In the latter case, when it is found necessary to remove the caries by the application of caustics, the lunar caustic, or sublimate, may be resorted to ; the method of using them must be according to the part of the body in which the ulcer may be seated.*

Ulcers seated on parts where bandages can be applied, are much more easy to cure than such as are found on parts where the dressing cannot be supported.

The following is an efficacious medicine in cleansing and healing foul ulcers, either on the joints or the tendonous parts.

* See chapter on quitters, the poll-evil, and fistulas, *infra*.

(RECIPE, No. 132.)

Caustic Mixture.

TAKE—Tincture of euphorbium, half an ounce ;
Tincture of benzoin, one ounce and half :
Sublimate, in powder, one drachm ;
Spirit of salts, two drachms :
Mix them together in a bottle for use.

Let this be forced into the wound with a syringe, or where the wound is sufficiently large, a pledget of lint may be soaked in the mixture, and applied to the bottom, and covered with a plaster made of digestive ointment spread on a pledget of tow, and secured with a proper bandage. When ulcers are of rather long standing, you must give one or two purging balls, as (No. 2 or 3, p. 22), and the alterative balls (No. 86, p. 122). What has been said respecting ulcers will be found adequate to answer every purpose.

CHAP. XXXVI.

OF THE BONE-SPAVIN, RING-BONE, AND SPLINTS.

It will be needless to say much on the nature of these complaints, as they are so well known to every person who keeps horses.

The *bone-spavin* is a hard excrescence, or swelling, growing on the inside of the hock; such as are on the lower part of the hock seldom give the animal so much pain as those which are seated more deeply in the middle of the joint. *Ring-bones* are hard swellings on the lower part of the pastern, near the coronet, and in general, extend round the fore part of the foot, in form of a ring; though it sometimes only appears on each side a little above the coronet, and then is termed splinters of a ring-bone. This disease generally takes its rise from the joining of the great and little pastern bones, which causes a stiffness in the motion of the joint. *Spavins* and ring-bones, in general, are occasioned by strains; but in some instances, they appear to be hereditary. The former are likewise frequently occasioned by a blow; and the

latter by a stub, or a tread in winter from the shoes, when turned up for the frost.

Splints are hard excrescences growing on the shank-bone of a horse, and of various shapes and sizes. Those which are large, and press against the back sinew, in general cause a lameness, or stiffness. Others (except those which are seated on, or near the joint) seldom occasion lameness. The treatment will be nearly similar in all the above cases. When any of these excrescences first make their appearance, and for some time before, the horse will be considerably lame, and requires a man of judgment to find out the part where he is lame. The cure must first be attempted by gentle means. The following blistering oils may be efficaciously employed.

(RECIPE, No. 133.)

Blistering Essence.

TAKE—Egyptiacum, and wine vinegar, of each two ounces;

Water of pure ammonia, spirit of turpentine, and oil of origanum, of each one ounce;

Euphorbium, and cantharides, of each two drachms:

Put them in a bottle, and, when used, let them be well shaken together.

This blister must be well rubbed on the part affected, with the hand, for half an hour at a time, and for six or seven mornings successively. This recipe is certainly one of the best that can be formed out of the materia medica, and deserves the highest commendation.' It will not only cure spavins, ring-bones, and splints, in their infancy, but when they are obstinate, and of long standing. It operates by blistering and sweating the part; it opens the pores, and makes way for the more powerful parts of the blister to penetrate through the ligamental purse which surrounds the joints. The author has frequently used this mixture for callous sinews, and in strains of long standing; and has always found it to be a medicine of the first consideration. Much might be said in recommendation of this mixture; but every person that has occasion to make use of it, will soon be convinced of its good effects.

The following is a very good recipe for splints and spavins when they are *first perceived*.

(RECIPE, No. 134.)

Repellent Embrocation.

TAKE—Oil of origanum, one ounce;
 Tincture of cantharides, and tincture of euphor-
 bium, of each half an ounce;
 Borax, in fine powder, half an ounce:
 Mix, and shake all well together.

Let this be well rubbed on the part affected with the *fingers ends*, for six or seven mornings together. In all the above cases, where the callus is not very large, and the pain has been, in part, removed by the application of the above-mentioned medicines, firing will,* for the most part, answer the end. After which operation let the part fired be spread all over with the blistering ointment (No. 113, p. 151), for three successive mornings. The horse must have his head tied to the rack, so as not to reach it with his mouth, lest he bite it (which will blister his mouth, and likewise blemish the part). He may stand tied for five or six hours, and then let him be untied, and have his liberty as before. In three or four days after the last time of dressing, he may be turned into a straw-yard, if in winter, or to grass, if at the spring of the year, for two or three months.

In very obstinate cases of long standing, and where the callus is large and the part full of pain, and none of the aforesaid medicines has been able to remove it, the following more powerful method *must be strictly attended to.*

First clip the hair; after this it has been usual to stamp them with an iron instrument for that purpose; but from the hardness of the blow shaking the part, it often does more harm than good.

The best method is to prick the callous part all over as full of holes as possible, with a bodkin; or, a sharp instrument about an inch long: to this may be fixed a bit of cork, or elder, in order to prevent the instrument from going deeper than the callous substance, yet it should always be permitted to pass through it. This done, bathe the part with vinegar; and when the blood is stopped, apply the following

(RECIPE, No. 135.)

Strong Blistering Ointment.

TAKE—Blistering ointment (No. 113, p. 151), one ounce;
 Cantharides, in powder, one drachm;
 Oil of organum, two drachms;
 Oil of vitriol, one drachm:
 Mix the whole together, and put them in a gally-pot for use.

Or the following may be applied, if thought more proper.

(RECIPE, No. 136.)

TAKE—Blistering ointment (No. 113, p. 151), one ounce;
 Cantharides, in powder, two drachms;
 Blue vitriol, and white vitriol, in powder, of each one drachm;
 Sublimate, half a drachm, in powder;
 Egyptiacum, half an ounce;
 Oil of organum, two drachms:
 Mix them well together, and put them in a pot for use.

This last we have found a most excellent blister in all concrete substances of these kinds, particularly those of splints and bone-spavins.

Either of the two must be worked in with the spatula, by a little at a time, for half an hour together, and repeated every morning for four or five times. After the first time of using the ointment, it will only require to be spread on, and a small bit of hog's lard may be rubbed round the edge, to prevent it from spreading any further. When this treatment is finished, and the part has become dry, the following blistering charge may be applied to advantage.

(RECIPE, No. 137.)

TAKE—White pitch, and black pitch, of each four ounces;
Common plaster with gums, two ounces;
Oxycroccum plaster, and strengthening plaster, of each one ounce;
Cantharides, and euphorbium, in powder, of each two drachms;
Dissolve the plasters together, then add the two last, and stir them all well together.

This charge must be spread on the part just before it sets, and a flannel, or some short wool, be immediately applied over the whole. In the course

of a day or two the horse may be turned out to grass for two or three months. If a flannel is applied and stitched on, the stitches may be cut in one month after ; and if any lameness still remain after he has been his full time at grass, he may be fetched up, and the blister and charge may be repeated as before. This method of treatment will be sufficient to cure most spavins, ring-bones, and splints, of three or four years standing, after other methods have failed.

CHAP. XXXVII.

OF THE CURB.

THIS affection of the limbs proceeds from the juncture of the same bones as the spavin, and rises on the back part of the hind leg, a little below the hock, where it forms a considerable tumor. It, in general, is occasioned by a strain, attended with inflammation ; from which there is often left behind a deposit of coagulable lymph, that causes a hardness to remain. When the curb is first perceived, the cure may easily be performed by cooling and bracing applications, such as are used for strains in the back sinews. See (No. 107, p. 145,) (No. 138, p. 182), or (No. 110,

p. 161). After the application of any one of the aforesaid medicines, for eight or ten days, if the pain and substance still continue, recourse must be had to more powerful medicines.

In such case, let the hair be clipped off, and the blistering essence (No. 133, p. 174) be well rubbed in as there directed, for five or six mornings together. After the application of this powerful blistering essence, the horse should be turned out for a month or six weeks; if at the expiration of that time there should be any remains of the curb, the blistering essence must be repeated as before.

This is a most powerful medicine for curbs. After blistering a second time, it is always necessary to give the horse two or three months' rest out of doors. Curbs of long standing, that become hard and callous, frequently require firing; which, if done by a *neat hand*, seldom leaves much blemish, especially if the following method be observed.

Let the irons be thin and smooth on the edge, but never made too hot: then take your hot iron, rub the edge smooth, and pass it gently all round the outside of the curb, so as to form it in the

middle of the circle; then fire three strokes downward, one down the main tendon, and one on each side, then across, in the same manner as directed for firing the sinews. Afterwards apply the blister (No. 113, p. 151), as before directed. A horse should have proper rest after operations of this kind; and ought to be turned into a straw-yard, or out to grass. The latter is preferable.

CHAP. XXXVIII.

OF TUMORS.

TUMORS, or imposthumes, are swellings arising from external injuries, or internal causes. Those arising from external accidents are attended with inflammation, more or less, according to their severity. They, in general, proceed from blows, and it is necessary, at first, to treat them with astringent and evaporating applications: let the part, therefore, be well rubbed with the bracing mixtures (No. 107, p. 145), or (No. 108, p. 146); if these do not repel the tumor in the course of the week, and the latter appear to proceed towards a state of suppuration, the following will be found more eligible.

„ „ (RECIPE, No. 138.)

TAKE—Linseed oil, and oil of turpentine, each six ounces;

Barbadoes tar, one ounce;

Oil of vitriol, half an ounce:

Mix them together, and put into a bottle for use.

This mixture may be well rubbed on, once or twice a day; and if on a part where a bandage can be applied, it will be adviseable to employ one. When the extravasated blood cannot be dispersed, the best way is to open the skin and let out the grumes, which may then be dressed with the digestive ointment (No. 121, p. 159), or the digestive oils (No. 119, p. 157), in the same manner as there directed.

When critical tumors, or swellings, arise from internal causes, such as fevers, &c. they must not be dispersed, except they fall on the lower limbs, as the pastern, or the coffin-joint, so that the horse is in danger of being foundered. In this case it will be proper to give him one or two doses of physic; and to foment the part with (No. 109, p. 147) twice a day; afterwards rub in the above mixture (No. 138, *supra*), and bandage the part with a flannel roller; by this method the joint will

be kept in a state of continual breathing. If the swelling appears on the poll, behind the ears, under the jaws, withers, or in the groin, and also is considerable, and attended with inflammation, it must be encouraged with the softening ointment (No. 125, p. 162), and a poultice made of rye-flour, or bean-meal, boiled in milk, and a proper quantity of elder, or marshmallow ointment added to it; or, if thought more adviseable, foment the part with (No. 123, p. 161), two or three times a day; after each time rub in a small quantity of the aforesaid softening ointment. As soon as the matter is formed, the tumor may be opened with a hot iron, or a lancet, and afterwards dressed with the above-mentioned digestive ointment, or oils.

Wounds of this kind seldom require tenting with digestive medicines longer than until a good matter is formed, and the swelling subsides: it may then be healed with the compound tincture (No. 116, p. 155), applied with a feather; after which the wound may be sprinkled with an equal quantity of burnt alum, bole armenic, and powdered resin mixed together. If any superfluous or proud flesh should appear, while under treatment with digestives, it may be removed by touching the part with lunar-caustic, or butter of antimony, or the escharotic powders, as used in Ulcers, page 171.

CHAP. XXXIX.

ON THE POLL-EVIL.

THE poll-evil is an abscess near the poll of a horse, formed between the poll-bone, and the upper vertebrae of the neck. It generally proceeds from bruises, or inflammation being transferred to these parts from fevers. This last is the most difficult to cure. When it proceeds from any external violence, it may be easily cured by rubbing the part well once a day with the bracing mixture (No. 107, p. 145), or (No. 108, p. 146). Afterwards bleed, and give him a gentle purge; and, if necessary, repeat it two or three times. After proper purging, bleeding, and the application of the above astringent mixtures, a cure may be expected in most recent cases.

But if the tumor, or swelling, does not begin to abate in a fortnight's time, after this treatment, let all the hair be clipped off, and well rubbed with the blistering essence (No. 133, p. 174) for three or four successive mornings, ten minutes each time. This will either bring it to a suppuration, or otherwise soon disperse it. If the swelling proceed to sup-

purate, and matter be properly formed, which will be easily discerned by pressing the finger on the part, it must be opened with a sharp knife, made for the purpose of opening wounds. There is no danger in cutting, provided care is taken not to cut the ligament under the main, which supports the head. To avoid this accident, let the horse's nose be twitched, and lifted up to slacken the ligament; for if his nose be hooked in, the ligament will be confined down, so as to prevent the finger being introduced under it. After the wound has been examined, and the operator finds himself able to introduce one of the fingers of the left hand under the ligament, he should, with a sharp knife in his right hand, introduce it into the wound, close to the finger; and while he supports the ligament with his finger, he should cut up to the poll-bone, and from thence along the side of the mane as far as it appears hollow, or ulcerated. It may easily be ascertained how far the ulcer extends, before the tumour is cut, for so far as the swelling reaches, it is always ulcerated under the ligament. The operation of cutting ought to be done by a little at a time, constantly feeling with the finger where the ligament lies.

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If both sides be bad, they must be treated in the same manner. [The chief danger that attends

this operation is the cutting the ligament; for if th's be cut, it will instantly let down the horse's head, and then he will be of no more use.] This being done, the finger may be run along under the ligament, in order to find whether there be any roughness, or decayed bones, left behind, which must be taken out with a drawing knife. When the above is performed, let the wound be dressed with the following styptic mixture.

(RECIPE, No. 139.)

TAKE—Oil of vitriol, one ounce;
Spirit of salts, half an ounce;
Sublimate, in powder, two drachms:
Mix, and put them in a bottle for use.

First cleanse the wound, and then dress it with a skewer dipped in the above styptic; a small wooden spatula, made in the shape of a case-knife, may be introduced into the wound; and if twisted a little to one side, will admit of a small quantity of the styptic being poured in, so as to extend under the ligament; afterwards it may be dressed with the following compound mixture.

(RECIPE, No. 140.)

TAKE—Tincture of myrrh, and Egyptiacum, of each four ounces ;

Oil of vitriol, three ounces ;

Corrosive sublimate, four drachms :

Mix the vitriol gradually, with the other articles, in a large pot ; afterwards put them in a bottle for use.

First cleanse the wound with a sponge or tow, then take the wooden spatula and introduce it again into the wound in the same manner as before ; then pour a small quantity of this tincture into the wound, so as to reach the bottom of it (to be repeated again every third day, for three or four times) ; after that, once a week will be found sufficient to perform a cure. This is an invaluable recipe ; I have cured many horses of poll-evil with it. Some people approve of the scalding ointment, after applying (No. 140, *supra*) for a day or so ; I have therefore introduced it here.

(RECIPE, No. 141.)

Scalding Mixture.

TAKE—Tar, mutton suet, and rosin, of each four ounces ;

Bees' wax, two ounces ;

Melt them all together ; then add,

Spirit of turpentine, four ounces ;

Distilled verdigrease, in powder, one ounce and
a half:

Mix, and stir them all well together till nearly
cold.

Before this ointment is used, the abscess must be well cleansed with a sponge and warm water; then dress the wound again with a skewer dipped in the styptic (No. 139, p. 186); afterwards, take a sufficient quantity of the ointment, and put it into an iron ladle furnished with a spout, and while another person heats it over the fire, take a wooden spatula, about an inch and a half, or two inches broad, and put it into the wound; then, with your left hand, hold it edgewise, so as to open it sufficiently, and with your right hand pour into the abscess the ointment whilst scalding hot. This being done, lay a pledget of tow lengthwise along the top of the wound, and close it together with three or four stitches. This dressing must remain a fortnight; after which let it be well washed with warm water, and scalded again as before; and, at the expiration of three weeks, the mixture must be repeated the same as before. The wound should never be meddled with between the dressings, only take care to keep his neck clean. The wound will, in general, run for three or four weeks after the last time of dressing. This method the author has tried in very bad cases, and seldom

found it to fail, if properly dressed. If any fungous, or proud flesh, should appear between the times of dressing, it may be touched with the styptic (No. 139, p. 186). After the horse has been dressed a third time, it will be proper to take some blood from him, and to give him a purging ball or two; such as (No. 2 or 3, p. 22), or (No. 6, p. 24). Afterwards he may have a few of the balls (No. 87, p. 123), which will be found useful in these cases.

CHAP. XL.

OF THE FISTULA, AND BRUISES IN THE WITHERS.

THIS is a kind of ulcer, which generally begins on the top of the withers, and is small at first, but soon enlarges and spreads on one or both sides. It commonly proceeds from bruises occasioned by the collar, or the saddle, and sometimes from blows given by accident. I have known some that have proceeded from a bad habit of body, which have proved the most difficult to cure.

The fistula is easily prevented, if attended to in time, under proper treatment; but when left to the management of unskilful persons, they, for the most part, terminate in very obstinate ulcers; if

early attended to, the cure must first be attempted by taking a sufficient quantity of blood from the horse; then rub the swelled part twice a day with the bracing, or repelling mixture (No. 107, p. 145), or (No. 108, p. 146), and immediately take a poultice of bean-meal, and vinegar boiled together with a lump of hog's lard, or a little sweet oil, and apply it to the swelling, then cover it with a rug, and gird it on with a surcingle. By this method considerable tumors of this kind have been removed in a few days. But if the swelling arises from a bad habit of body, as stated above, or from inflammation being transferred to these parts from fevers, repellents must be omitted, and the swelling must be assisted by softening applications, in order to bring it forward to a state of suppuration. Let the tumor be well rubbed every morning and night with the ointment (No. 125, p. 162), or the blistering essence (No. 133, p. 174), and immediately after rubbing the part with either of these mixtures, apply a poultice as directed above. This method will soon bring it to a proper state for opening, or otherwise it may be permitted to break of itself; and afterwards the orifice may be enlarged with a lancet, which will prevent any matter from being confined therein. Then dress the wound with the styptic mixture (No. 139, p. 186), and afterwards with the scalding mixture (No. 141, p. 187). This

ointment will not have occasion to be made so very hot for fistulas as for the poll-evil; but yet it must be dressed in the same manner as there directed, twice a week. As soon as the wound discharges good matter, and the swelling has subsided, it generally looks wide and gaping; and when all the vacant parts become filled with sound flesh, it will be proper to heal it with the compound tincture (No. 116, p. 155), which may be done by anointing the part with a feather dipped in the same, and afterwards sprinkling over the wound the following healing and drying powders.

(RECIPE, No. 142.)

TAKE—Burnt alum, and white vitriol, of each half an ounce, in powder;
Bole armenic, white lead, and yellow resin, of each two ounces in powder:
Powder and mix them all together.

All wounds of this kind must be dressed once or twice a day with the tincture and these powders.

Warbles are small, hard tumors, which appear on horses' backs in the summer season, and are chiefly occasioned by the unequal and long-continued pressure of the saddle. They, in general, proceed from heats and colds in travelling. The cure will be easily performed by rubbing the parts

with the bracing mixture (No. 107, p. 145) or the following lotion.

(RECIPE, No. 143.)

Cooling Lotion.

TAKE—Camphorated spirit of wine, four ounces ;
Acetated litharge, and tincture of opium, of each
one ounce :
Mix them in a bottle for use.

This will be found an excellent medicine for warbles, and all kinds of bruises occasioned by the saddle ; if they are obstinate, and resist the above applications, apply the blistering essence.

SITFASTS.

These generally proceed from the saddle, or collar, pinching the parts on which they press ; and render the skin hard or callous. They may be easily cured by applying the mixture (No. 107, p. 145), or the above (No. 143) ; but if the skin become horny, it may be cut out, and the place well rubbed with the nitrated ointment (No. 33, p. 56) once a day. Or, if thought more proper, it may be dressed with the compound tincture (No. 116, p. 155), and the last-mentioned powders (No. 142, p. 191). By this method the practitioner will be enabled to perform cures in every case.

CHAP. XLI.

GREASE, CROWN-SCAB, AND RAT-TAIL.

THE grease is a disorder well known to most persons who keep horses. It makes its appearance, particularly, at the latter end of the year, and during the winter season. This disease may proceed from different causes; as, debility in the system, a gross habit of body, want of exercise, a relaxation, or inflammation of the vessels of these parts, and a consequent congestion of blood in them.

The grease is frequently owing to the negligence of the groom, in not keeping the horse's limbs clean and dry, and giving them that hand-rubbing which they require several times in the course of the day, to promote perspiration, and the circulation of the blood in those parts; a due regard to which would prove a great preventive of this complaint.

The symptoms indicating the grease are, swelling of the limbs, and a sharp eruption, which discharges a fetid matter, somewhat like melted glue. When the horse's heels are first observed to swell, while he stands in the stable, and to go

down with exercise, let them be well washed when he comes in with soap-suds, or vinegar and water; and the parts afterwards rubbed incessantly for a considerable time, till perfectly dry. The rubbing with the palm of the hand may be repeated three or four times a day, in order to promote the circulation of blood, and increase the action of the absorbent vessels in those parts, which very much assists in curing this disease. After this hand-rubbing let the parts be well rubbed with the following mixture.

(RECIPE, No. 144.)

TAKE—Goulard, or extract of lead, one ounce;
White vitriol, in powder, half an ounce;
Vinegar, one pint:
Mix together for use.

The above is a powerful mixture in repelling inflammation, bracing the fibres, strengthening the vessels, and preventing horses from greasing at the heels. Or the following wash may be used, which will be found of equal efficacy in preventing the grease.

(RECIPE, No. 145.)

TAKE—Blue vitriol, white ditto, green ditto, and alum
(all to be bruised), of each four ounces;
Boiling water three quarts:
Mix and stir them until they are dissolved, and
put them in a bottle for use.

A small quantity of this wash may be rubbed on the part affected every night and morning, after the horse's heels have been well cleansed from dirt. Horses that grease considerably at the heels, must first have all the hair clipped off as close as possible, and their heels be washed with soap and warm water; then let them stand half an hour after, and bathe the parts well (where he greases) with the above astringent wash.

(RECIPE, No. 146.)

TAKE—White vitriol, one ounce;
Alum, half an ounce;
Vinegar, eight ounces;
Water, four ounces:
Mix for use.

This, as well as (No. 145, 194) is a powerful medicine in checking the progress of this disease. When the heels have been well dressed with the above astringent wash, or (No. 145, p. 194), take proper pledgets, made of tow, or hurds, and spread them with the following ointment; then apply them on the part that greases, and bandage them on with a flannel roller, or an old stocking-leg. This done, let it be bandaged a second time, either with strong list, or with broad tape.

(RECIPE, No. 147.)

TAKE—White ointment, eight ounces ;
Sugar of lead, and white vitriol, of each half
an ounce :
Mix well together on a marble slab.

The above dressing must stay on twenty-four hours ; at the end of that time repeat the astringent wash, with fresh pledgets of the ointment as before. Three dressings, with these applications, are, in general, sufficient to cure, though the case be ever so bad. It sometimes may be necessary to poultice the parts for two or three days before the above applications are resorted to, and for this purpose the following will be found suitable.

(RECIPE, No. 148.)

TAKE—Of coarse flour, bread, or bran, a sufficient quantity, and boil it in old milk to a proper consistency ; then add,
Hog's lard, two ounces ;
Venice turpentine, one ounce ;
Alum, in fine powder, two ounces :
Mix them all together, and apply the poultice warm to the part.

This will be found sufficient to cure the grease in most recent cases. The following ointment

will be very suitable for gentlemen who keep a number of hunters, or hackneys, in the stable during the winter.

(RECIPE, No. 149.)

Ointment for scratched Heels.

TAKE—Hog's lard, one pound;
 White lead, four ounces;
 Alum, in fine powder, two ounces;
 White vitriol, one ounce;
 Sugar of lead, half an ounce;
 Olive oil, three ounces:
 Grind all the powders in a marble mortar with the oil, or on a marble slab; then add the lard, and work the whole together till united.

This is a neat composition, and very proper to keep in the stable during the winter: it will not only be found useful for greasy and scratched heels, but also for stubs and threads of every description. A small quantity must be rubbed on the part affected every night and morning, in slight cases; but in treads, or wounds upon the heels, it will be best to spread the ointment on pledgets of tow, and secure them with bandages, in the same manner the ointment (No. 196, p. 196).

Having thus discussed the *external treatment*

of this disease, we now proceed to its *internal management*, which is of equal importance.

First let the horse be bled to the quantity of three to six quarts, according to his size, strength, and condition; and then give him the following diuretic drink.

(RECIPE, No. 150.)

TAKE—Yellow resin, in powder, four ounces;
Juniper berries, bruised, and caraway seeds, in
powder, of each two ounces;
Nitre, in powder, one ounce:
Mix them in a quart of cold ale, and give it
fasting in the morning.

This drink is more calculated for cart, or wagon-horses, than for hacks, or hunters; its strength may be very much increased by adding one or two ounces of resin, or spirit of turpentine, and for heavy horses that swell much at the heels it will be found of great advantage. Give the drink fasting in the morning; let him stand without food for two hours after, then give him food and water as usual. The day following give him as much cold water as he will drink, with moderate exercise. Repeat the drink every third morning, for three or four times. The following formulas for diuretic balls, will be found of great use to such

horses as are inclined to swell, or grease, at the heels.

(RECIPE, No. 151.)

TAKE—Yellow resin, in powder, half a pound ;
Salt of prunella, in powder, four ounces ;
Ginger, in powder, four ounces ;
Castile soap, half a pound ;
Oil of juniper, one ounce :
Treacle, a sufficient quantity to form into a mass
for balls.

Two ounces of this mass are sufficient for one ball, and one may be given to the horse every third day.

(RECIPE, No. 152.)

TAKE—Yellow resin, nitre, liquorice root, in powder, of
each eight ounces ;
Ginger, in powder, four ounces ;
Castile soap, four ounces ;
Oil of turpentine, two ounces :
Treacle, a sufficient quantity to make into balls,
each ball to contain two ounces.

These balls are to be given in the same manner as the former ; they will be found equally well calculated to increase the flow of urine, and by this means will prevent inflammatory tumors from settling in the heels of horses.

(RECIPE, No. 153.)

TAKE—Nitre, yellow resin, and crocus of antimony, of each one pound, in fine powder ;
Castile soap, sliced, one pound ;
Balsam of capivi, two ounces ;
Venice turpentine, six ounces ;
Liquorice powder, and ginger, fresh powdered, of each four ounces :
Beat them all together, with a sufficient quantity of treacle, into a proper consistency ; then form them into balls, weighing two ounces each.

One ball of either of the preceding recipes may be given every third day, until the horse has taken four or five balls : then leave off for a week ; and, if necessary, repeat them again. His food and water may be cold, as usual. If a cure is not speedily performed by these applications, it will be proper to give him two or three doses of physic : such as (No. 2 or 3, p. 22), or (No. 5, p. 23) ; after which the diuretic balls may be given, and his legs be dressed as above directed. By these methods horses that grease at the heels, will in general, be cured, though the disease be ever so bad, or of long standing.

THE CROWN-SCAB

Is a humour that breaks round the coronet, producing a scurviness and itching: it may be cured in the same manner as the grease, by applying the poultice (No. 148, p. 196), and the astringent wash (No. 145, p. 194), or (No. 146, p. 195), and afterwards the ointment (No. 147, p. 196). Sometimes the author has found it necessary to make use of the mercurial ointment (No. 33, p. 56), or (No. 39, p. 64), which must be well rubbed on the part before the ointment and water for the grease are applied.

RAT-TAIL.

This disease generally takes its course from the pastern to the middle of the shanks, and is so called from the resemblance, it bears to the tail of a rat. Sometimes it is *moist* and at others *dry*; in the former case, it must be treated in the same manner as for the grease; and in the latter, with the mercurial ointment (No. 33, p. 56), or (No. 39, p. 64), which must be well rubbed on the part affected once or twice a day.

CHAP. XLII.

WIND-GALLS, BLOOD, OR BOG-SPAVIN.

THE wind-gall is a small puffy tumor, that yields to the pressure of the finger ; which being removed, the tumor again returns. These swellings are visible to the eye, and are seated on both sides of the back sinew, a little above the fetlocks, both on the fore and on the hind legs, and are generally induced by hard labour. The cure must be undertaken in the following manner.

First, clip off the hair, and then rub on the part the blistering ointment (No. 113, p. 151), or blistering essence (No. 133, p. 174), every morning, for three or four mornings together. In the course of a few days, or as soon as the part that has been blistered becomes dry, let the horse be turned out to grass for a month or six weeks ; but, if in winter, let him be kept in a straw-yard for the same time. This method of treatment rarely fails entirely to remove the puffy tumors : but the most effectual way of dispersing them, so that they shall not return a second time, will be, to fire the part, and blister it for three or four mornings together, with the blistering ointment, or essence above-mentioned,

and in a few days after he may be turned out to grass, as before directed.

BOG-SPAVIN.

This is a tumor which makes its appearance on the inside of the hough, and gives way to the pressure of the finger, but recovers its shape on the removal of the latter; it is generally (though falsely) called a blood spavin, from its causing a distention of the vein. The bog-spavin arises from a strain in the hock-joint, occasioned by hard riding, drawing, leaping, &c. Sometimes young horses will strain themselves by galloping about, when in their pastures; by which the capsular ligament that surrounds the joint, and the mucous bag, or cyst, becomes inflamed, and occasions this disease. In this complaint the horse goes stiff, or lame in the joint, when first contracted. It is always attended with inflammation more or less, which may be felt by applying the hand to the part. Sometimes it is so considerable as to extend all round the hock-joint, with violent pain and swelling: in this case it must be fomented with (No. 123, p. 161), and the mixed oils (No. 120, p. 158) be rubbed on immediately after. Let these be applied twice a day, until the inflammation and swelling subside; but if the inflamed part

matures and goes on to a state of suppuration, it must at first be treated as for fresh wounds,* and afterwards in the same manner as wounds on the joint.† The bog-spavin, however, seldom puts on so alarming a nature. If the horse's leg be lifted up, shaken, or turned about, the bones will grate together as if they were bare. The common method of cure, except in the aforesaid case, must be with the following liniment.

(RECIPE, No. 154.)

TAKE—Soap liniment, four ounces ;
Spirits of sal ammonia, two ounces ;
Spirits of wine and camphor, two ounces :
Mix in a bottle for use.

Or the following may be used.

(RECIPE, No. 155.)

Liniment.

TAKE—Soft soap, two ounces ;
Spirits of hartshorn, four ounces ;
Stir them well together in a marble mortar ; add
Spirits of turpentine, two ounces ;
Strong camphorated spirit of wine, four ounces :
Mix them all together, and put them in a phial
for use.

Either of these mixtures must be rubbed on the spavin, every night and morning, for a fortnight,

* See chap. xxx. p. 143. † See chap. xxxi. p. 150.

or three weeks ; by which time it will generally be removed, if taken in time. The author has also frequently made use of the bracing mixture (No. 107, p. 145,) and (No. 108, p. 146), for tumors of this description, which by their repelling quality have frequently been removed in a short time. When the tumor or spavin is of long standing, and the inflammation has entirely subsided, the following operation may be performed with success : a small orifice may be made with a lancet about the middle of the tumor, a little on one side of the vein, by which means a large quantity of slimy matter will be discharged, of a wheyish colour. As soon as the mater is squeezed out with the finger and thumb, take an equal quantity of egyptiacum, and tincture of benzoin, or wound balsam, mix them together, then force it into the wound with a syringe, and the blistering ointment (No. 113, p. 151) ; rub all round the outside of the wound for three mornings together. The wound should never be dressed after the first time, lest an inflammation should be brought on, and endanger a discharge of synovia, or joint-oil : the horse must be kept in the stable a week, or a fortnight, until the wound is quite healed. This done, he may be turned out to grass for six or eight weeks.

If the part appear weak at that time, firing will

be of great service, if it be neatly done; and the blistering charge (No. 114, p. 152) applied all round the joint; after which he may be turned out to grass for the same space of time as before: then if the charge be covered with a flannel, the stitches may be cut, and the charge permitted to fall off of itself. It should here be noticed, that if the spavin be opened when it first appears, dangerous consequences will result. The humour then discharged is of a brownish colour, and sometimes tinged with blood; but when it is of long standing, there is no danger in opening the tumor. By strict attention to the aforesaid rules the bog-spavin may be cured, though of ever so long standing.

CHAP. XLIII.

MALLENDERS AND SALLENDERS.

MALLENDERS and sallenders are synonymous terms for the same disease: the former appears in the bend of the knee, the latter in the bend of the hough; and attended with a sharp, corrosive discharge. Mallenders often occasion lameness, and stiffness in the joints, which frequently cause them to stumble. These complaints are easily removed by the same treatment as those made use of for

horses that grease at the heels. First clip off the hair, then wash the part with soap and water, and let him stand half an hour; afterwards rub the part well with the astringent wash (No. 146, p. 195), or (No. 145, p. 194); then take pledgets of tow, or hurds, spread with the mild mercurial ointment, or (No. 147, p. 196), and apply it over the cracks, and bandage them on with a flannel roller, or one made of an old stocking. Dress them once a day till they are well, which is seldom longer than three or four days. If two ounces of the ointment (No. 149, p. 197), and one ounce of the ointment of nitrated silver (No. 33, p. 56), be mixed together, it will make an excellent ointment for eruptions of this description: a small quantity may be rubbed on the part affected every night and morning. If in the winter, the horse must be kept in the stable during the time of cure, and take from two to four quarts of blood from him, according to his size and strength. Likewise give him a diuretic ball (No. 151, p. 199), No. 152, p. 199), or (No. 153, p. 200), every third morning until he has taken four or five. The horse should neither work, nor have exercise with these bandages about his legs, but let them be taken off, and fresh dressings applied when he comes in.

CHAP. XLIV.

LAMPAS.

THE lampas is an excrescence on the first bar in the roof of the horse's mouth. The cure is generally performed by burning it out with a hot iron; but it requires care, and a man of judgment, to perform operations of this kind. Farriers, in general, are too apt to take out more than is necessary; care, however, must be taken not to burn out more than the first bar in the roof of his mouth, and not too deep. Afterwards rub his mouth, or the part seared, with common salt. It would be much better for the animal to omit burning them out, and to wash his mouth once or twice a day with the following mixture.

(RECIPE, No. 156.)

TAKE—Nitre, half an ounce;

Burnt alum, and bole armenic, in powder, of each one ounce;

Honey, two ounces:

Put them in a pitcher, and then pour a pint of boiling vinegar upon them: when cold, put them in a bottle for use.

The mouth must be washed with this mixture once or twice a day, which may be done by fastening a linen rag round the end of a stick, dipping it in the mixture, and introducing it into his mouth. This will take away the soreness, and harden his mouth, from which there will be no necessity to remove the lampas by actual cautery.

CHAP. XLV.

WOLVES-TEETH, BY SOME CALLED EYE-TEETH.

THIS is a small tooth appearing on the upper jaw, at the distance of about half an inch, or an inch, from the grinders; sometimes on one side, and at other times on both sides. These teeth are seldom found in young horses; but old horses are sometimes subject to them. They are supposed to affect the eyes at different times; they must be removed either by the application of a hammer and chisel made for the purpose, or by filing them down level with the gums.

CHAP. XLVI.

THE TEETH, OR GRINDERS.

HORSES, that are kept on dry meat, will often be found to champ their hay and corn, slaver at the mouth, and frequently to put their food out again. This is occasioned by some fault in the grinders, or otherwise from the canker. In the former case it will be easily discovered by examining the internal parts of the mouth, as there will sometimes be considerable holes, or wounds, cut with his grinders in the weaks of his mouth. Let his grinders be filed quite smooth on that side next the sores, with a file made for the purpose, smooth on one side, lest it tear the weaks off his mouth. This being done, let his mouth be dressed once or twice a day with the mixture (No. 156, p. 208), or that used for the canker in the mouth (No. 157, p. 211), as there directed.

CHAP. XLVII.

CANKER IN THE MOUTH.

THE canker is generally owing to the bridle-bit being rusty, and may easily be known by the little blotches, or brown specks, which appear on the tongue and other parts of the mouth. If, however, the disease is not caused by the bridle-bit, it appears in small white specks, and in time will spread nearly over the whole of the mouth, and occasion irregular ulcers. The following will be found an effectual cure for this complaint.

(RECIPE, No. 157.)

A Gargle Mixture.

TAKE—Wine vinegar, half a pint;
Burnt alum, and common salt, of each one ounce;
Bole armenic, half an ounce:
Mix, and shake them together in a bottle for use.

It will be proper to dress the horse's mouth with this mixture, every morning and evening, in the following manner. Take a small cane, or a piece of whalebone, half a yard long, and tie a linen rag,

or a little tow, round one end; then dip it into the inixture, and pass it up his mouth, and gently remove it to all the affected parts; let him champ it well about in his mouth; after which let him fast an hour, then give him food as usual.

CHAP. XLVIII.

NARROW-HEELS.

NARROW-HEELS are generally natural defects, and are often rendered incurable by *bad shoeing*. Farriers, in general, are very faulty in applying their drawing-knives to the feet of narrow-heeled horses, frequently to such a degree, as to make the blood start all over the sole of the foot: though this method may ease the foot of pain for a time, yet, by taking away its support, it causes them to contract much faster. This practice is very destructive to the feet of horses, and, in general, brings on a permanent lameness, called the founder in the feet. *The foot should be pared as little as possible*, the rotten, or decayed, parts only being removed, and not too much hollowed in shocing. If the feet be hard and dry, they must be filled up every night with the following composition. *The horse should never work, or be taken to exercise, with stuffing in his feet*: let all, therefore,

be taken out, and, when he returns, fresh stuffing should be put in. . .

(RECIPE, No. 158.)

TAKE—Tar, and hog's lard, of each four ounces ;
Common turpentine, one ounce :
Melt them together in an iron ladle.

First dip the pledgets of hurds into this mixture, while warm, and stop up the horse's feet ; then take two bits of sticks (commonly called splints), and put each end crossways under the shoe. Where horses' hoofs are dry and brittle, it is a common, but injudicious, practice among grooms to oil, or grease them, by which means many a good hoof has been spoiled. The best method of preserving the hoofs is, to wash them in old urine once or twice a day, which will strengthen and cause the hoof to grow : this treatment will also prevent it from cracking, or breaking, after the shells are first rasped off, and will so rust the nails, that a clinch will seldom start from the time of shoeing, till the animal requires again to be shod. Where, however, the hoofs are constantly greased, or oiled, every day, the clinches will sometimes rise a quarter of an inch in a week's time, which loosens the shoe, and causes the hoof to crack as far the nails extend.

Narrow-heeled horses may be treated in the following manner. Take a firing iron, not too hot, and fire from the point of the heel (as far as the hoof is drawn in), between the hair and the hoof, but rather more upon the hoof. This must be done on both the *in-heel and out* ; and if the hoofs appear much contracted towards the heels fire tolerably deep. As soon as the firing is finished, dress the parts with the following compound mixture.

(RECIPE, No. 159.)

TAKE—Egyptiacum, and compound tincture of myrrh,
of each two ounces ;
Spirit of turpentine, one ounce :
Mix, and shake them well together in a bottle
for use.

A small tent of tow dipped in the above mixture must be laid lengthways on the wound, with a pledget of dry hurds upon it, and bandaged on with a roller made of flannel, or an old stocking ; repeat the dressing once a day till the wound is sufficiently healed ; then let him be turned out into a straw-yard, and give him a winter's run. If in the spring of the year, let him have a summer's run on low ground, either of which will prove suitable to forward the cure. In about six weeks after the above operation is performed, a

new hoof will begin to appear round the coronet, betwixt the hair and hoof; and as it grows down, will be considerably wider than the old one.

CHAP. XLIX.

HOOF-BOUND.

A HORSE is hoof-bound when the hoof is very tight round the instep, between the hair and hoof, and wide at the bottom, resembling the shape of a bell. It is often occasioned by setting on broad and hollow shoes; and likewise from a fever falling from the body down into his feet. In this case, the farrier generally falls to work in paring and drawing away the sole of his foot, in order to find out his lameness, and afterwards puts on a broad shoe that is very much hollowed. By this *fatal practice* the support of his foot is taken away, and in a week or a fortnight's time the horse's coffin drops, and all hope of a cure is rendered ineffectual. This is chiefly owing to bad shoeing, and a want of proper knowledge in the management of such diseases. But if this complaint be attended to in time, it may be cured by easing the shoe, and applying the following medicines.

First stop the foot with (No. 158, p. 213), as there directed; and then rub the blistering oint-

ment (No. 113, p. 151) all round the instep, just above the hoof, for half an hour, or more. In a few days after he may be turned out to grass for two or three months.

CHAP. L.

QUITTOR.

A QUITTOR is an ulcer formed on the coronet, that is to say, between the hair and hoof; generally upon the heel, on the inside quarter of the horse's foot. It arises from treads, bruises, and stubs; or from gravel (when the foot has been pricked in shoeing) working upwards, and lodging near the coronet. This disease, if attended to before it has begun to form sinuses, or become *pip*ed, may easily be cured by applying the following oils.

(RECIPE, No. 160.)

TAKE—Egyptiacum, and spirit of turpentine, of each four ounces;

Put them into a large pot that will hold three or four times the quantity of the whole:

Add oil of vitriol, half an ounce;

Nitrous acid, one ounce:

Mix these with the two first articles by a little at a time, and immediately add,

Eight ounces of spirit of wine:

Mix the whole carefully together, and put them in a bottle for use.

A proper quantity of these oils must be rubbed on the part affected every night and morning, after it has been first washed, or cleansed from dirt. The horse should have rest, if possible, during the time of cure; but if he cannot be rested, care must be taken to wash the part every night, or as soon as he comes from his labour; and when it is properly dry, well rub in the oils, and repeat them in the morning half an hour before he goes to work. These oils are excellent in curing all kinds of treads, stubs, and bruises, on the feet of horses before they are ulcered; and likewise are equally efficacious for the foul in the feet of beasts.

When the quittor is ulcered, or piped, it will be easily discovered by washing the part with warm water; then let him stand half an hour, or an hour, within which time a thick matter will appear over the mouth of the wound. The depth and situation of the wound, or ulcer, must be examined with a probe, or (if that cannot be obtained) with a crow-quill; and if no swelling appear about the wound, a cure may speedily be performed by the following applications.

First, cleanse the matter from the wound, then take nitrated silver (lunar caustic), and introduce it into the wound to the bottom, if possible, and

hold it there for the space of a minute or two; next, take verdigris, or sulphate of copper, or the prepared verdigris; any one of these will do, but it *must be powdered*, and folded in a thin bit of paper, and put in with a probe to the bottom of the ulcer, and a tent of tow after it, by way of keeping it in. In a few days this will turn out a small core, after which the wound may be healed with the above mixed oils (No. 160, p. 216); but if the part be swelled round the ulcer, it is certainly hollow at the bottom as far as the swelling extends; in this case it will be proper to make two or three little holes through the swelled part with a blacksmith's poker, sharpened and made red-hot for the purpose; then put into each hole a small lump of sublimate, folded in thin paper, and pressed to the bottom; afterwards, fill them up with tow. If the practitioner wishes to keep the sublimate a secret from the by-stander, let him powder it, and make it into a paste, with a little spirits of harts-horn; lay it on a fire-shovel, and place it by the fire-side to dry; in this state it quickly turns black. A small quantity of this paste, or powder, the size of a pea, or bean, must be rolled in paper, and forced to the bottom of the wound as before stated. After the caustic has been applied, a little of the above-mentioned oils may be rubbed on the part, and the following poultice spread on a cloth, and

applied over the swelling once a day for a week,
or till the cores come out.

(RECIPE, No. 161.)

TAKE—Of ale dregs, and rye-flour, a sufficient quantity;
Boil them to a proper consistence for a poultice;
While warm, add two ounces of hog's lard.

Or the following may be employed with equal
effect.

(RECIPE, No. 162.)

TAKE—Bran, a sufficient quantity;
Steep it in old milk for half an hour, then boil
it to a proper consistence for a poultice;
Add common turpentine, and elder ointment, of
each one ounce:
Mix, and stir them together while warm.

Either of these poultices may be spread on linen
cloth, and applied warm to the part affected, once
a day, until the core is ready to be taken out, or
falls out of itself: afterwards dress the wound with
the following healing mixture.

(RECIPE, No. 163.)

TAKE—Egyptiacum, two ounces;
Tincture of benzoin, one ounce;
Oil of vitriol, one drachm:
Mix them together by degrees, and put them in
a bottle for use.

The wound must be dressed once a day with this mixture until it is well.

First, wash the part, and, when sufficiently dry, rub on the above-mentioned oils (No. 160, p. 216); then supply a small tent of tow, or lint, dipped in the above mixture, and secure it on with a roller, or bandage. But if the matter be lodged, or confined, under the hoof, the hoof must be entirely taken away in that part, and a bar-shoe put on to case the quarter. The matter, if retained too long, will rot the coffin-bone, it being of a soft and spongy nature.

Horses are the most subject to quitters in the winter season, or early in the spring; they are generally accompanied by the grease, and other diseases of the body, which frequently protract the cure for a considerable time, or until they have undergone a regular course of physic; but where it cannot be dispensed with, bleeding, and the use of any of the diuretic balls (No. 151, p. 199), (No. 152, p. 199), or (No. 153, p. 200), will be found beneficial, if persevered in for some time. By strict attention to these rules, the practitioner will be enabled to perform cures in the worst of cases.

CHAP. LI.

RUNNING THRUSH.

A RUNNING frush, or thrush, is an ulcer in the frogs of horses' feet, from the cleft of which it discharges a corrosive fetid matter. Horses subject to this disease have fleshy heels, ragged, or rotten, frogs, which are incapable of giving protection to the more sensible parts of the feet, whence arises that tenderness in the foot we so frequently see.

The method of cure must *first* be to pare away the putrid, ragged, or rotten part of the frog; then rub the part with the astringent wash (No. 146, p. 195); after which lay on a small pledget of tow, dipped in egyptiacum, upon the thrush, and a pledget dipped in tar, over the whole; splinter it fast down under the shoe. Repeat the dressings once a day until cured: the astringent wash must be continued for some time after, by way of hardening the part. If this method fail, the following must be used.

(RECIPE, No. 164.)

TAKE—Tincture of benzoin, and compound tincture of myrrh, of each two ounces;
Sublimate, one drachm;
Muriatic acid, two drachms:
Put them all into a bottle for use.

Let this mixture be rubbed on every part of the frog that is diseased, and the following stopping applied in a quarter of an hour after.

(RECIPE, No. 165.)

TAKE—Tar, four ounces;
Alum, in powder, two ounces;
White vitriol, and blue vitriol, of each half an ounce, in powder:
Mix them together.

Let this mixture be spread on thick tow, and applied all over the thrush, splinter it fast under the shoe. It will be proper to dress the foot once a day; but on no account let the horse work with dressings in his foot. In stopping a discharge of this nature, it is always proper to give him a purge or two; or, otherwise, diuretic balls.

CHAP. LII.

CANKER IN THE FOOT.

THIS disease, in general, proceeds from a running thrush, which spreads, and runs under the sole of the foot, until it turns putrid and rotten, which causes it to fall off. The first intention of cure must be to pare the foot down; then with a proper knife, bent in the shape of an half moon, pare out the rotten and putrified flesh, which grows on the bottom of the foot, taking care not to cut deeper than the decayed part, lest it should endanger the coffin-bone. This being done, put on the shoe with *two nails on each side*; then take a handful of common salt, and lay it over the part which is cut; and fasten it properly with hurds: this will stop the bleeding. The next day take off the dressing, and examine whether the hoof presses on any part that is tender; if so, it must be pared quite thin, or, if hollow underneath, be taken quite away. If necessary, this operation must be repeated every time it is dressed.

(RECIPE, No. 166.)

TAKE—Egyptiacum, four ounces;
Alum, in fine powder, half an ounce;
Blue vitriol, and white vitriol, of each two
drachms, in powder :
Mix them in a gallypot.

Anoint all the diseased part of the foot with the compound tincture (No. 164, p. 222), then take pledgets of tow, and dip in the above mixture (No. 166, above), and apply all over the parts affected : and upon this dressing, let pledgets of tow be spread with the stopping (No. 165, p. 222) sufficient to cover the whole ; afterwards fill up the vacancy with dry hurds, and splinter it down to the foot as fast as possible : by this method of dressing, the cure will be effected much sooner. The foot must be dressed once a day ; and if any fungous flesh appears, sprinkle a little verdigris in powder over it.

Sometimes the horse loses his hoof in this disorder, which renders the cure more difficult, and also occasions much trouble. If the shoe cannot be made fast to the foot, it will be difficult to fasten on the dressings, unless a boot be made for the purpose. In this case there are frequently so many cloths, or rags, and hurds applied, as to

heat the foot, and often to make it worse than before: therefore, to prevent the hoof from falling off, let it be well washed every day with the astringent wash (No. 146, p. 195), before the foot is dressed, and all round the instep, as high as the fetlock joint. This method will preserve the hoof from falling off. Two or three doses of mercurial physic, such as (No. 27, p. 53), must be given, and worked off with the purging ball (No. 28, p. 53), which will be the only means of cleansing him and cooling his blood, and also of giving a check to the disease: let him be treated as there directed. In a few weeks after he has been physicked, it will be proper to give him a few of the balls (No. 194, *post*), as there directed. By strict attention to the preceding methods of treatment every skilful person will be able to effect a cure on the worst kind of cankered feet whatsoever.

CHAP. LIII.

BITES AND STINGS OF VENOMOUS CREATURES.

THE bite of a viper, or adder, may be cured, if early attended to, by rubbing the part, or the whole limb, for a considerable time, with warm salad oil, repeating it two or three times a day. But if the following liniment can be procured in a short time after the bite, it will be far better, and more effectual in checking the progress of the venom.

(RECIPE, No. 167.)

TAKE—Olive oil, four ounces;

Water of pure ammonia, opodeldoc, and tincture
of opium, of each two ounces:

Mix, and keep them in a bottle for use.

Let the part affected be rubbed twice a day with this mixture, which will be found an useful liniment in the above cases, and likewise for stings by hornets, or wasps. If pain and inflammation increase, it sometimes will produce much constitutional irritation, as restlessness and loss of appetite; in which cases it will be necessary to foment the affected part, with the recipe (No. 109, p.147),

and bathe it frequently in the day, with the following cooling lotion.

(RECIPE, No. 168.)

Cooling Lotion.

TAKE—Goulard's extract, three ounces;
Spirits of wine, one ounce;
Vinegar, four ounces;
Water, one quart:
Mix, and shake the bottle when used.

An opening drink should also, in these instances, be given; the following will be found suitable.

(RECIPE, No. 169.)

TAKE—Aloes, Barbadoes, six drachms;
Ginger, in powder, two drachms;
Caraway seeds, in powder, one ounce:
To be given in a pint of warm gruel.

If the inflammation does not much abate, after the drink has operated, take from three to four quarts of blood from the horse, and repeat the drink in two or three days after; this treatment will in most cases effect a cure.

CHAP. LIV.

ON THE PULSE.

A KNOWLEDGE of the morbid variations of the pulse, with other concomitant symptoms, frequently much assists us in detecting and preventing impending disease, and also in curing diseases; but to understand these variations properly, we should be accurately acquainted with the healthy pulse of the horse, as to its frequency, fulness, and strength. The pulse of a healthy horse beats about 40 or 50 times in a minute, and may be distinctly felt, on the outside of the *lower jaw-bone*, by applying the fore-fingers on the inside of the jaw, and the thumb on the outside, over the pulsating artery; or you may feel it by the hand applied rather to the left side of the chest, where the heart is situated, and also in various other parts of the body: the pulse of a young colt is 70 or more; this must be attended to in disease.

The pulse is said to be *strong* when the dilatation of the heart, or artery, strongly resists the pressure of the fingers; and *full* when the

diameter or bulk of the artery or heart is much increased at each pulsation; a *strong full pulse* always occurs in a healthy horse. If the pulse rises but very little under the fingers, it is said to be a small pulse; and if, at the same time, it is accompanied with a degree of hardness, we call it a *small oppressed pulse*; this sort of pulse is frequently met with in horses that are high fed, and not enough exercised, and arises from too great quantity of blood in the system, which, when diminished by bleeding, the pulse becomes fuller, and the horse looks more lively.

A *small oppressed pulse* is frequently also present in *sleeping staggers*, *inflammation of the lungs*, and in *inflammatory colic*, while, at the same time, the pulse is not much quicker than usual: but each of these diseases has other symptoms peculiar to the part affected, and more to be depended upon, as marking the particular seat of the affection; yet the pulse, in these cases, is certainly an additional convincing sign of inflammation, or disease, being present; and the pulse becoming fuller after bleeding, is a proof of the good effects of depletion.

When the pulse strikes against the fingers with much force, like a hard body, we call it a *hard*

pulse: and if the number of pulsations are augmented, we say, it is a quick or frequent pulse: a quick and hard pulse is generally a sign of some internal inflammation. In inflammatory colic, the pulse is small, quick, and hard; and if after bleeding it becomes fuller, and softer, and not so quick, we conclude the inflammation is greatly abated; but if, on the contrary, the pulse become quick, and almost imperceptible, it indicates, with the other unfavourable symptoms present, that the bowels are in a gangrenous state. The pulse, in inflammation of the lungs, is usually a *small oppressed pulse*; but occasionally I have felt it quick, full, and hard. In *mad staggers* it is commonly quick, full, and hard.

A *soft pulse*, is when the powers moving the blood are weakened, so that the blood is feebly driven forwards, and scarcely resists the pressure of the fingers; bleeding often produces a soft and slow pulse, which before was hard and frequent. A *small soft pulse* indicates a horse to be weak.

If the number of pulsations of a horse are augmented to 60 or 70, or more, and this does not arise from exercise, or fear of the animal, and is attended with other symptoms of sickness, we may infer that he is labouring under symptomatic or

idiopathic fever, and will require immediate attention. (See Fevers.)

Whenever the pulse varies from the healthy standard, either augmented in number, or small and oppressed, and the animal looks dull, we must, generally, in these cases, deplete the system by bleeding and purging: by these means we frequently prevent disease coming on, or check it at its commencement.

It is chiefly in inflammatory diseases that the pulse is affected; and these diseased variations of the pulse are always combined with other signs, indicating not only the nature of the complaint, but its seat; therefore, I think, the pulse cannot mislead you much; but, on the contrary, will often be found an important means of ascertaining the violence of disease, the effects of remedies on the constitution, and also the probability or improbability of the horse's recovery from disease.

CHAP. LV.

BITE OF A MAD DOG.

THE following recipes have been much recommended in the bite of a mad dog.

(RECIPE, No. 170.)

TAKE—Rue leaves, and the leaves of the shrub box, dried and powdered, of each three ounces and a half;

Savin leaves, dried and powdered, two drachms :
To be given in a quart of warm ale to the horse, for three or four successive mornings.

Or,

(RECIPE, No. 171.)

TAKE—Garlic heads, and rue leaves, dried and powdered, of each three ounces and a half;

Pewter, in powder, two ounces and a half;

Oyster-shells, prepared, three ounces and a half;

Savin leaves, dried and powdered, two drachms :

To be given to a full grown beast in a quart of warm ale.

. This drink may be repeated every other day for three times. The most effectual method of cure, is (if the part will admit of it), instantly *to cut out the part bitten*, and afterwards to cauterize

it with a hot iron. The wound must be dressed with (No. 127, p. 164), and afterwards take pledgets of tow, and spread them thick with the digestive ointment (No. 121, p. 159), and apply over the wound; fasten them on the part with a proper bandage. Repeat the dressings once a day until well.

Such dogs as have been bitten by others of the same species, in a state of hydrophobia, were formerly treated with some success, by giving them from eight to twelve grains of turpeth mineral, mixed into a pill with conserve of roses. This pill may be given to a dog once a day for three days together, and repeated the night preceding the full and change of two or three successive moons.

CHAP. LVI.

GELDING.

GELDING is an operation well known to most persons, and there are many persons in this kingdom who follow this part of the profession only.

The usual method is to throw the horse down on some convenient spot, and turn him on his back, then draw one of his hind legs forward

towards his neck, by which means the practitioner will have more room to perform the operation. Then with a pair of flat barnacles, or pincers, take hold of the scrotum, make a section through it, sufficient to admit the testicle being pressed out: (this may be done either with a knife, or burnt through with a hot firing-iron;) then apply the flap nippers a little below the testicle, and hold it sufficiently tight to prevent an overflow of blood; the stone may then be seared off with a hot iron, or if cut off seared afterwards.

While the iron is hot, dissolve a sufficient quantity of resin over the seared part; and, lastly, apply a pledget of lint, spread with digestive ointment, just within the wound. When this is done, proceed in the same manner with the other stone.

I believe this to be the best and safest way to perform this operation, whatever the age of the animal may be. A gentleman in the neighbourhood of Retford, had two horses (three or four years old) castrated by tying up the spermatic vessels with a ligature; both of which died. A full-grown horse, if in good condition, ought to undergo some preparation before the operation. Purging, if thought proper, or otherwise bleeding, and a few of the alterative balls (No. 87,

p. 123), may be given for several days before he is cut.

If the swelling and inflammation about the part are considerable, give him the drink (No. 126, p. 163), as there directed; and gently rub the part with digestive oils (No. 119, p. 157), or the ointment (No. 125, p. 162). In some cases it may be necessary to foment the swelling with the fomentation (No. 123, p. 161), before the oils, or ointment, are rubbed on. By these methods the horse will be preserved from that danger which so frequently happens in operations of this kind.

CHAP. LVII.

DOCKING.

DOCKING or cutting off a horse's tail, is an operation almost universally known, and is seldom attended with any danger. The operation is best performed with an engine, used for that purpose by most farriers. After the tail is taken off, let the part be gently seared with a hot iron till the blood is stopped, then cover the part with powdered resin, and touch it with the hot iron till it dissolves and runs all over the end of the stump.

This is all that is requisite in docking a horse : sometimes, however, it happens, among heavy waggon, or coach-horses, when docked too near the rump, that an inflammation and gangrene may succeed, especially if the tail be fleshy. In this case no time must be lost : foment the part, therefore, two or three times a day with (No. 123, p. 161), then rub all over the same the blistering oils (No. 124, p. 162), and let this be done till the inflammation abates. His body must be treated in the same manner as for inflammatory fever.* These rules must be persevered in until his appetite returns, and the feverish symptoms entirely disappear.

CHAP. LVIII.

NICKING

Is an operation designed to make the horse carry his tail neatly and elegantly. It should not be performed when the weather is either too hot or too cold, but in a mild and temperate atmosphere.

First, let the horse be thrown down on some convenient spot, then, according to the length of his tail, let four or five nicks be cut across on the

* See chap. xvii. p. 92 and fol.

under side. The first nick must be about two inches from his rump ; and the others at a proportionable distance from each other. The greatest art in nicking is, to cut sufficiently deep on each side the under part of the tail. There are two tendons or sinews on each side, the ends of which will sprout or rise up after they are cut ; some persons take a small quantity of these tendons out, in order to prevent them from growing together again ; but this is absurd ; if the horse's tail be properly pulled the tendons cannot unite again.

As soon as the operation is performed, take small pledgets of lint, or tow, and dip them in an equal quantity of tincture of myrrh and tincture of benzoin, or Friar's balsam (after they are well shaken together) : apply them to each wound with pledgets of dry tow over them ; then secure the dressing on with a proper bandage over each wound : after which let him be gently walked about until he becomes cool, by which time the blood will be stopped. Then put him in the stable, and the day following at night cut the laps, but by no means disturb the dressings : next morning take off the old dressings and apply the following.

(RECIPE, No. 172.)

Compound Digestive Mixture.

TAKE—Egyptiacum, four ounces;
Spirit of turpentine, three ounces;
Tincture of benzoin, one ounce:
Put them in a bottle, and shake them well together when used.

A small dossel of tow must be dipped in this mixture and applied lengthwise on each wound, and tied up with laps of tow or old linen cloth, as before: and, in about two hours after the tail has been dressed, let the horse be put into the pullies; take care that you do not hang too heavy a weight on the pulley the first day, as it is apt to make him startle, and thereby some have broken their tails.

The chief art in making a horse to carry his tail suitably to the wish of the owner, consists in the proper care and management during the first week he is put in the pulley. The pullies should be fixed about a yard above the horse's shoulders, in order to bring the end of his tail within four or five inches of the croup. The method of fixing it must be according to the position of the horse.

If he is placed on one side of his standing more

than the other, the pullies must be fixed to that side to keep his tail in a proper position. The dressings must be repeated every other day, during eight or ten days; afterwards anoint the wounds ounce a day with a feather, dipped in the mixture, and immediately after sprinkle a little powdered resin all over the wounds. This must be repeated once a day until he is well. The horse should have regular exercise every day, or every other day: if he swells at the heels, and his tail likewise swells, and discharges a large quantity of matter, it will be proper to take some blood from him, and give him a few diuretic balls, such as (No. 152, p. 199).

CHAP. LIX.

SAND-CRACKS, AND FALSE QUARTERS.

SAND-CRACKS are little clefts, running in a straight line down the hoof, and sometimes through the horny part; which, in process of time, often grows out of itself; but if the crack passes through the ligament, which joins the hoof with the coronet, it must be treated in the following manner.

First, rasp across the cleft betwixt the coronet

and hoof, both thin and wide, then take a firing-iron, and moderately heat it; afterwards fire a line straight across the cleft, between the hair and the hoof. Dress it in the same manner as for the false quarter.

A *false quarter* is, when one part of the hoof is destroyed by some long-continued quittor, that has been badly managed; which renders the quarter useless and the horse frequently lame. The following method of treatment will be found most effectual in the cure of such cases.

First, rasp the quarter that is so affected quite thin, from the coronet to the bottom of the foot; then take a firing-iron moderately heated, fire a straight line exactly between the hair and hoof, or if a little more inclining on the hoof, it will be the better. Begin at the corner of the heel, and go forward for half an inch, or an inch upon the sound part of the foot; fire it sufficiently deep through the ligament which unites the hoof with the coronet. This being done, dress the part with the digestive ointment (No. 121, p. 159), and repeat the dressings once a day for eight or ten days, until the wound discharges a proper quantity of matter, after which dress it regularly once a day, until well, with the mixture (No. 172, p. 238).

This operation always answers the best when performed at the latter end of the year; the horse must be kept in the stable till the wound is sufficiently healed, afterwards he may be turned out into a straw-yard, and continue there during the winter. It should, however, be observed, that the horse will require somewhat better food than mere straw; a little hay and corn, therefore, will be necessary twice a day.

If the horse undergoes this operation in the spring, it will be necessary, after he has stood in the stable a proper time, to turn him out to grass on some marshy or low grounds, and give him a summer run. In about six or eight weeks after the horse has been fired, a new hoof will begin to appear all round the coronet, as far as the firing extended. When it is grown half an inch, or an inch, down, and appears any ways out of form, it must be brought into shape by rasping: and if the foot be afterwards washed with old urine once a day, this will harden and give consistency to the part. As soon as the quarter is grown down, and the horse begins to work, every time he is new-shod his foot must be washed with old chamberley, in order to rust the nails, and strengthen the hoof.

CHAP. LX.

WOUNDS IN THE FEET FROM NAILS, GRAVEL,
&c. &c.

HORSES, in general, are more subject to lameness in the feet than in any other part of the body, which for want of care and proper judgment, often proves of bad consequence; as these parts are naturally tender and exposed to inflammation. When matter is once formed in any part of the foot, it must be opened and discharged; otherwise the bone which is of a spongy nature, will soon become affected, and the whole foot be in danger. The most dangerous part about a horse's foot, is that at the point of the frog; which being near the coffin-bone, a stub in this part is generally attended with considerable danger.

When any forcing bodies are lodged in the foot, such as nails, stubs, thorns, &c. the foot must be pared down with a drawing-knife, *to the quick*, all round the part, and the nail, or whatever it may be, extracted as soon as possible. If the wound be recent and slight, apply the oils (No. 160, p. 216) with a small pledget of lint or tow dipped in it once

or twice a day ; and let it be stopped up with the application (No. 158, p. 213), for a night or two, this treatment will, in general, effect a cure in all slight cases. If the instrument penetrate so deep as to affect the coffin-bone, no time should be lost in the attempt to cure. The following will be found suitable for the purpose.

(RECIPE, No. 173.)

TAKE—Tincture of benzoin, one ounce ;
 Spirit of turpentine, half an ounce ;
 Mixed oils (No. 160, p. 216), one ounce and an
 half :
 Mix, and shake them all together in a bottle
 for use.

Let a small tent of lint, or tow, be dipped in this mixture, and applied to the wound ; if slight, it need only be laid over the mouth ; but if the wound be considerable, it will be proper to force the mixture to the bottom, either with a syringe or by pouring it in. Afterwards let the foot be properly stopped with the following

(RECIPE, No. 174.)

TAKE—Tar, hog's-lard, and common turpentine, of each
 four ounces ;
 Yellow wax, two ounces ;
 Spirit of turpentine, one ounce :
 Melt them together for use.

After the wound has been dressed with the aforesaid mixture, melt a proper quantity of this *stopping* in an iron ladle, then dip it in small pledgets of tow, and apply them over the dressings, fasten dry hurds over the whole, and secure the dressing by putting a couple of splints across to fasten them. By strict attention to the application of the above remedies, a cure may be performed in all wounds of the feet, proceeding from pricks in shoeing, or from gravel, stubs, thorns, nails, &c. Should this method of treatment prove unsuccessful, and the horse still continue lame, the wound must be immediately laid open to the bottom with a proper drawing-knife, and the matter discharged, which in general is thin, bloody, and offensive. If any nail should penetrate the joint of the foot, so as to endanger the cartilage that surrounds the joint, and cause a discharge of synovia, or joint-oil, it will prove extremely difficult to cure. In cases of this kind no time should be lost, the horse must be treated in the same manner as directed in Chapter XXXIV. p. 166, on humours oozing from the joints.

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It may not be irrelevant here to notice a bad practice very prevalent among country farriers in their management of those horses whose feet are lame. After the foot has been pared quite thin,

and the horse is so far recovered from his lameness, as to be capable of work, the farrier in general wedges the lame part under the shoe with hurds and stopping, in order to prevent the gravel from working to the wound. This is a very erroneous notion; the pressing of the hurds on the lame part causes much pain, and will *not* prevent the gravel from working between the sole and the stopping, or hurds. In cases of this kind, the pain and inflammation have been so much increased, as to make the horse more lame than at the first. To prevent such accidents, the horse should never be permitted to work with any kind of stuffing under the shoe; but should be shod so as to ease the part, and give the gravel an opportunity of working out as it enters. When he comes from his work the foot should be well washed with warm water, and afterwards stopped up with warm stopping as before. But in the morning, or when he goes to work, it ought all to be taken out with a picker, made for the purpose.

CHAP. LXI.

ON THE COLT-EVIL.

THIS disorder chiefly affects young stallions which have full liberty with mares before they are able to cover them. The symptoms are as follow : an inflammation and swelling in the sheath, yard, and testicles ; these symptoms are in general much increased by the lodgement of dirt or other nastiness in the sheath, which may be removed by washing the parts well with warm milk and water, when he draws his yard, which may be affected at any time by taking him to a mare. If the parts be much swelled, let them be fomented with the following

(RECIPE, No. 175.)

TAKE—Marshmallow roots ;

Elder leaves, and wormwood, of each one handful ;

Poppy heads, twelve in number :

Boil them in a gallon of (equal quantities of) milk and water.

Foment the parts affected every night and morning with hot flannels, squeezed out of the above fo-

mentation; and then rub the swelled parts with the following liniment.

(RECIPE, No. 176.)

TAKE—Ointment of elder, ointment of spermaceti, and ointment of marshmallows, each two ounces;
Camphor, half an ounce;
Dissolve it in one ounce of highly rectified spirits of wine :
Mix them all together, and keep them tied down in a pot for use.

After the parts have been fomented, let this liniment be gently rubbed all over as far as the swelling and inflammation extend. As soon as these subside, the cure may be completed by applying the following lotion.

(RECIPE, No. 177.)

TAKE—Camphorated spirit of wine, four ounces;
Acetated litharge, two ounces;
White vitriol, one drachm;
Water, half a pint:
Mix, and put them in a bottle for use.

Let the parts be bathed with this lotion two or three times a day: it will be found excellent to cool, brace, and strengthen the parts. The oozing or dribbling from the yard is properly a simple gonorrhœa, or gleet. It is chiefly owing to high

feeding in young horses, and an inflammation or relaxation of the mucous membrane lining the yard, brought on by frequent seminal emissions. It will be necessary, first, to give the horse a gentle purge, such as (No. 2 or 3, p. 22); three or four days after give him a diuretic ball (No. 153, p. 200), and repeat it every third day until he has taken three or four balls: omit them for a week, and repeat them as before, or the diuretic balls may be omitted, and the following given in their stead.

(RECIPE, No. 178.)

TAKE—Electuary of senna, four ounces;
Nitre, and yellow resin, of each four ounces,
in powder;
Gum Arabic, in powder, and balsam of capivi,
of each two ounces;
Castile soap, one ounce;
Liquorice powder, four ounces:
Beat the balsam of capivi and soap together
until united, then add the remainder:
Make them into balls weighing two ounces
each.

One of these balls may be given once or twice a day, and continued for a considerable time, or until the horse is well. In some cases, that seem difficult to cure, where the horse is disposed to be surfeited, or symptoms of the farcy appear, it will

be proper to give him the balls (No. 87, p. 123), as there directed. But if the above methods should fail, it will be proper to inject a spoonful or two of the lotion (No. 177, p. 247) up his yard, once a day with a syringe, as it may proceed from an ulcer formed near the mouth of the urethra.

CHAP. LXII.

ANTICOR, OR THE FELTORIC.

THIS disorder begins with a violent and malignant swelling in the breast, and extends along the belly as far as the sheath; it is attended with a fever and inflammation, great depression, weakness, and loss of appetite; the last symptom is frequently occasioned by the inflammation, which sometimes affects the whole gullet and throat, and is attended with immediate danger. To effect a cure it will be proper, first, to take from two to four quarts of blood from the horse, according to his size, strength, and habit of body. In the evening give him the following

(RECIPE, No. 179.)

TAKE—Antimonial powder, calomel;
Ginger, in powder, and
Castile soap, of each one drachm:
Honey, enough to make a ball.

The next morning it will be proper to give him the following purging drink.

(RECIPE, No. 180.)

TAKE—Aloes, Barbadoes, six drachms ;
Ginger, in powder, half an ounce ;
Cream of tartar, one ounce :
Mix, and give it in a pint of gruel.

If this drink does not operate by the morning following, give him a pint of linseed oil in a pint of warm gruel ; after that the diuretic drink (No. 150, p. 198) may be given every three or four days for three times. The swelled part must be rubbed once or twice a day (until the swelling subsides) with the blistering oils (No. 124, p. 162) ; afterwards the cure may be finished with the suppling liniment (No. 176, p. 247). In cases of this kind the horse will require every attention ; warm water and mashes must be given him in small quantities, several times in the course of the day, till such time as he is out of danger. It is a usual practice, amongst country farriers, to open the tumor in five or six places with a lancet, or by actual cautery ; and afterwards to dress the wounds with digestive ointment or oils ; but this method is always attended with danger, as it is difficult to bring the wounds to a good digestion ;

and if this be not effected, a gangrene and mortification in general takes place about the wounds; which, if not stopped in time, will occasion the horse's death.

CHAP. LXIII.

FOUNDER IN THE FEET.

THIS disorder is superficially understood by most persons, and is in general called the *chest-founder*, though it is a query whether such a disorder ever existed. It is very common to hear of horses that are foundered in the feet; but, I believe, it never did exist in the chest.

Founder in the feet arises from different causes; as, taking cold after violent exercise, or by drinking cold water, and riding into ponds when overheated. Thus perspiration is checked, and an inflammatory fever is produced, which, in general, terminates in the horse's feet, and produces this disease. The founder in the feet is sometimes entirely confined to that part, and is occasioned by hard riding on stony, or hard roads, and appears to increase upon them in an insensible way. This disease is easily discovered by the different posi-

tions the horse constantly puts himself in. When both his fore feet are affected, the hinder feet are brought forward, by which means the fore feet are greatly relieved from the pressure they otherwise would have to endure; and where only one foot is affected, the horse is always attempting to relieve it, either by putting it forward, or letting it rest upon the toe. But when all four feet are diseased, the horse cannot be a moment at ease while standing; his desire is to lay down continually, and if he is made to rise, it is with the greatest difficulty. After the horse has been prepared with mashies of scalded bran for two or three days, it will be proper to give him the following compound mercurial ball.

(RECIPE, No. 181.)

TAKE—Calomel, and white antimonial powder, of each
one drachm;
Opium, and camphor, of each half a drachm;
Castile soap, and aromatic confection, of each
two drachms:
Make them into a ball with syrup of buckthorn.

This ball must be given in the evening, and the following purging drink early next morning.

(RECIPE, No. 182.)

TAKE—Barbadoes aloes, four drachms;
Electuary of senna, two ounces;
Epsom salts, two ounces;
Nitre, one ounce;
Tincture of opium, two drachms:
Mix, and dissolve in a quart of thin gruel.

The horse must be treated in the same manner as for other physic, that is to say, with warm water, and mashes of scalded bran and oats, two or three times a day. After the physic has ceased to operate, the horse may be treated the same as in other fevers. If, however, the horse should incline to be costive, let the clyster (No. 12, p. 29) be administered once a day. The parts round the fetlock and pastern-joints must be well rubbed with (No. 131, p. 169), or with the following cooling mixture.

(RECIPE, No. 183.)

TAKE—Sal ammoniac, two ounces;
Nitre, one ounce;
Dissolve them in one pint of the best wine vinegar;
Spirit of turpentine, two ounces;
Camphorated spirit of wine, four ounces:
Mix, and keep them in a bottle for use.

This mixture must be rubbed all round the

coronet, as high as the fetlock-joint, two or three times a day. Bleeding will be found proper in most cases of this kind, and will be attended with considerable advantage in checking the inflammation. If the above method of treatment be attended to, it will prove sufficient to prevent the fever settling in his feet.

Where this disease has been standing a considerable time, small lumps, of the size of a large nut or filbert, will appear upon the coronet on each side of the heel: these may be properly called splints of a ringbone, as they in general arise from the same cause. The cure will be best performed if treated in the following manner.

First, clip off the hair, three or four inches broad, all round the coronet; prick the lumps on each side the heel in the same manner as for bone-spavins;* and then dress the part with the blistering ointment (No. 135 or 136, p. 177), as there directed. As soon as the blister has done running (if in the winter) he may be turned into a warm straw-yard, and there run till spring. But if the horse undergoes the operation in the spring, he should have a summer's run on some

* See Chap. xxxvi. p. 173.

low situation. If the animal is only foundered in one foot, and the hoof is not contracted or less than the other, the sole may be drawn, and the shoe easily put on; then let the foot be well stopped, or filled up, with an equal quantity of fresh nettles and salt, pounded together in a mortar; and then covered over with pledgets of hurds well pressed down, and secured with three or four splints made of wood, and put across under the shoe; by this method the bleeding will soon be stopped.* This being done, clip off the hair all round the coronet, and fire him neatly; afterwards, let the blistering ointment (No. 113, p. 151) be well rubbed on the part affected, three or four mornings together. It should always be remembered that the horse's head must be tied up to the rack, lest he bite the part and blister his mouth, whilst the blister is taking effect: the litter, likewise, should be taken from before him, lest he rub it off.

When the new sole has attained a sufficient

* It will be proper to let this dressing remain in the foot twenty-four hours; after which, dress the foot with the mixture (No. 173, p. 243), and then stop it up with (No. 174, p. 243). This should be repeated once a day until a new sole appears, then once every other day will be sufficient to effect a cure.

strength, so as to enable the horse to bear his own weight, he may be turned out into a straw-yard; or if it be in the spring of the year, on some low grounds.

Horses that have been foundered a long time, generally have their feet pared down, and the soles of their feet drawn thin, every time they are shod, in order to cool the feet; this may give relief for a short time, but in the end will bring on a permanent lameness; the air, by its penetrating and drying effect on feet so reduced, causes them very rapidly to contract or grow less, and there is no method that can be used to any advantage, in order to throw out the foot, excepting that used for narrow heels (see chap. XLIX. p. 215), one half of the foot must be fired at once, and the other half in six or eight weeks after, and treated as there directed. The sole, being the main support of the horse's foot, very seldom requires more to be pared off than the loose or shelly parts. If the horse's feet be ever so strong or good, the constantly thinning of the sole every time he is shod, will make him tender-footed, and in time will bring on this disease.

CHAP. LXIV.

ROWELLING.

ROWELLING is useful in some respects, and answers nearly the same intention as blistering does on the human body. When this operation is performed, the skin must be cut so as to get a finger or a thumb into it, which must be worked about till the skin is parted from the body three or four inches round; then dip the rowel in a little of the digestive ointment (No. 111, p. 148), previously dissolved, or in an equal quantity of hog's lard and common turpentine, melted together. In cases of severe coughs, or other affections of the windpipe, also in inflammation of the lungs, or bowels, it will be proper to cover the rowel with a sufficient quantity of the following mild blistering ointment.

(RECIPE, No. 184.)

TAKE—Yellow basilicon ointment, one ounce;
Cantharides in powder, two drachms;
Spirit of turpentine, two drachms, by measure.

This ointment will be found to act more powerfully in stimulating the parts to action, and in bringing on a regular suppuration, than any of the former. When the rowel is put in, two or three

tents of tow, dipped in the same ointment as is used with the rowel, must be introduced into the wound. The horse must have warm water and mashes for three or four days, or until the wound begins to suppurate. When a good matter makes its appearance, the tents must be taken out, and the rowel turned every two or three days. A fortnight, or three weeks, are always deemed a sufficient time for a rowel to be in; as, if permitted to continue any longer, it is apt to leave a carious substance.

Rowelling is useful in old strains of long standing, either in the shoulder, stifle, or whirl-bone.— When a rowel is used in the shoulder, it must be about three or four inches below the joint of the shoulder; a similar distance below the whirl-bone; and the same distance also below the stifle-joint, but rather more to the inside of the thigh. The use of rowelling in the above purposes is to excite a counteraction, and, by this means, remove the chronic inflammation, which causes the lameness. It is likewise proper in diseases of the head, viz. pains in the head, sleepiness, staggers, and disorders of the eyes, in swelled heels, and likewise in cases of fever. It must be observed, that a horse should never be let blood, or purged, until the rowel digests a good matter.

CHAP. LXV.

ON MERCURIAL OINTMENT, AND ITS USE.

ABOUT forty years ago this ointment was but little known in the practice of farriers ; since that time its use has very much increased throughout the kingdom. Lincolnshire, in particular, is a noted county for the great consumption of that article. The author of these sheets constantly makes up from ten to twenty hundred weight of hog's lard into mercurial ointment for sheep every year.*

The following ointment will be found of excellent use for many complaints in horses, as may be seen in different parts of this work.

* For practical directions concerning the use of this powerful medicine among *neat cattle* and *sheep*, the author begs leave to refer to his *Practical Treatise on the Diseases of Horned Cattle and Sheep*; entitled "Every Man his own Cattle Doctor."

(RECIPE, No. 185.)

Mercurial Ointment.

TAKE—Quicksilver, half a pound ; Venice turpentine,
four ounces ;
Spirit of turpentine, one ounce :
Put them in a marble mortar, and rub them
together till the globules entirely disappear ;
then add
Hog's lard, one pound and a half ;
Bees' wax, four ounces : melt the wax and lard
together, and add them to the former.
Let them be well stirred together until cold.

Or the following

(RECIPE, No. 186.)

TAKE—Quicksilver, one pound ;
Strained turpentine, four ounces ;
Oil of turpentine, two ounces ;
Hog's lard, five pounds :
Triturate the quicksilver with the turpentines
in a marble mortar for three or four hours ;
then add the lard, previously melted, and stir
till cold.

This is a very useful ointment for innkeepers, and persons who keep horses to run post ; it ought always to be kept ready prepared, as it requires a person to work at it for nearly a whole day before the silver is properly incorporated. It will be found

often a speedy and effectual cure for sore shoulders and backs, bruises, scratches, mange, mallenders and sallenders, the poll-evil before it breaks out, and likewise for greasy heels; a little of the ointment may be rubbed on the part affected once a day.—It likewise will be found effectual in destroying filth on young horses; a small quantity may be rubbed all along under the mane, and on the back to the tail; likewise on those parts where filth lodges most.

CHAP. LXVI.

BLACK OILS, AND THEIR USE.

THESE oils are effectual in curing sheep that have been bitten by dogs or torn with lambing. They may be rubbed on the part once or twice a day, for two or three days together, which is in general sufficient to effect a cure. They are likewise excellent for all wounds in fleshy parts, either in horses or beasts; and where a gangrene is likely to ensue, there is no application more beneficial. .

(RECIPE, No. 187.)

TAKE—Linseed oil, four ounces;

Oil of vitriol, one ounce:

Mix them together in a chamber-pot:

Then add spirit of turpentine, two ounces :

- . . Stir these well together until united, add one pint more of linseed oil ; stir the whole together, and put it in a bottle for use.

These oils are excellent for the purpose for which they are intended ; but for the sake of variety, another recipe should be subjoined, containing more articles, and of a different description from the former ; but which will, in fact, answer the same purpose, or may even be more efficacious ; and which we can confidently recommend to general adoption.

(RECIPE, No. 188.)

TAKE—Linseed oil, four ounces ;
Oil of vitriol, one ounce ;
Stir them together in a large pot ; then add
Spirit of turpentine, eight ounces ;
Oil of elder, four ounces ;
Oil of origanum, one ounce ;
Barbadoes tar two ounces ;
Compound tincture of myrrh, four ounces ;
Oil of bays, two ounces :
Mix them all together, by a little at a time,
with the vitriol and linseed oil, and put them
into a bottle for use.

When either of these oils is mixed up, it should not be put in a bottle *too soon*, and corked, lest it should burst the bottle.

APPENDIX;

OR,

VETERINARY PHARMACOPŒIA :

CONTAINING .

A number of select Prescriptions for different Diseases;—the method of preparing and compounding such Medicines as are recommended in the former part of this Work;—together with Remarks on the Doses, and their different uses, and also on the manner of applying the same.

INTRODUCTION.

THE practical part of Farriery (in the country) is in general left to persons who have but little knowledge, either of diseases, or of the nature, quality, and the effect of medicine. Horse powders are more adulterated than any other medicines sold in druggists' shops; and, therefore, should never be bought in that state. Seeds, of almost every description, when once powdered, begin to lose their quality every day, so that in a short time they are of little or no virtue. Simples, such as seeds, roots, barks, and gums, should always be

purchased in their original state, and that of the best quality. *Bad articles increase the disease,* and endanger the life of the animal, as well as deceive the prescriber. Those of the best quality, when properly administered, will seldom or ever disappoint the expectation of those who prescribe them. The author has endeavoured to avoid the more expensive medicines, such as greatly increase the price of any composition, without adding considerably to its virtue.

CHAPTER I.

BALLS.

(RECIPE, No. 189.)

Balls for the Staggers.

TAKE—James's powders, two drachms ;
 Turmeric, and cream of tartar, of each half an ounce :
 Make them into a ball with conserves of roses, or honey; a sufficient quantity.

(RECIPE, No. 191.)

Fever Balls.

TAKE—Antimonial powder (*pulvis antimonialis*), two drachms;
Nitro half an ounce;
Camphor, in powder, one drachm;
Electuary of senna, sufficient to make it into a ball.

Either of the above balls may be repeated twice a day, or oftener if required. The last ball is equal to the other in its effects. If the *pulvis antimonialis* be prepared according to the London Pharmacopœia, it will be found a great deal cheaper, and may be afforded genuine at one shilling per ounce. Horses affected with the staggers, convulsions, epilepsies, or inflammatory fever, of any kind, should by no means have malt mashes, or cordials of any kind, that are likely to increase the febrile heat. Gruels, made of oatmeal, or fresh powdered linseed, or equal quantities mixed together, are the most proper for horses in a feverish state. Half an ounce of cream of tartar, or the same quantity of nitre, might be added to the gruel, as may be thought proper till the appetite is recovered.

(RECIPE, No. 192.)

Cordial Balls.

TAKE—Caraway seeds, grains of paradise, and aniseeds,
fresh powdered of each two ounces;
Flour of sulphur, and turmeric, in powder, of
each two ounces;
Ginger, in powder, half an ounce;
Candied sugar, in powder, four ounces:
Spanish juice, two ounces; break into small
pieces, and dissolve it in a wine glass of
water by the fire;
Oil of aniseeds, two drachms;
Liquorice powder, six ounces:
Mix and beat them into a mass with a little
honey, and form into two ounce balls.

Cordial balls are chiefly prepared for hunters and road horses: they are very proper to give to the former when they return from the chase, and to the latter after a hard day's journey. They give fresh life and vigor to exhausted nature; prevent the horse from taking cold; strengthen the stomach; increase the appetite, and promote digestion. They may be given in slight cases of the colic or gripes; and to horses that are making up for sale, with considerable advantage.

(RECIPE, No. 193.)

Restorative Balls.

TAKE—Gentian, in powder, two ounces ;
Virginian snake-root, in powder, one ounce ;
Peruvian bark, in powder, two ounces ;
Ginger, half an ounce ;
Mithridate, two ounces ;
Oil of aniseeds, two drachms ;
Grains of paradise, in powder, two ounces ;
Liquorice powders, four ounces :
Beat the whole in a mortar, with a sufficient
quantity of honey, into a proper consistency
for balls of the size of a pullet's egg.

These balls are better calculated to restore the appetite, after a lingering disease, than the former. They promote digestion, brace and strengthen a relaxed constitution ; and are proper to give in all internal disorders after the symptoms are mitigated.

(RECIPE, No. 194.)

Diuretic Balls.

TAKE—Yellow resin, in powder, two pounds ;
Nitric, kali prepared, juniper berries, and Castile
soap, of each one pound ;
Cut the soap in thin slices, and the remainder
reduce into powder :
Beat them to a proper consistence, with honey,
and form them into a common-sized ball.

These balls will be found excellent for carrying off and cleansing the kidneys and bladder from the stone and gravel. Horses are subject to the stone in the kidneys: I have known several taken from that part of a considerable size: and it is very common, when a horse stales, to see a large quantity of sand fall on the pavement, sometimes of a light brown hue; and in different horses the colour has varied according to their different habits of body. Horses subject to this disease are frequently troubled with obstructions in the urinary passages, which bring on the colic, or gripes, and frequently terminate in an inflammation. A ball may be given every day in cases that are bad, but once a week will be sufficient when given as a preventive.

CHAPTER II.

CLYSTERS.

(RECIPE, No. 195.)

Purging Clyster. .

TAKE—Mallows and camomile flowers, of each one handful;
Fennel seeds, two ounces;
Mix and boil them in five quarts of water till reduced to four quarts, strain and add
Linseed oil, half a pint;
Coarse sugar, four ounces;
Epsom salts, five ounces:
Mix, and when dissolved, let it be administered while new-milk-warm.

This clyster will be found very useful in cooling and opening the body in fevers.

(RECIPE, No. 196.)

Restricting Clyster.

TAKE—Oak bark, four ounces;
Logwood, four ounces:
Boil them in four quarts of water till reduced to three; strain it off, and let it be administered new-milk-warm.

In cases where the purging is violent, this

270 APP.—CLYSTER FOR CONVULSIONS.

clyster may be forced up the rectum once or twice a day, until the flux abates.

(RECIPE, No. 197.)

Clyster for Convulsions.

TAKE—Linseed, and valerian root, of each four ounces;
Boil them in three quarts of water to four pints;
add
Epsom salts, four ounces;
Assafœtida, half an ounce;
Opium, two drachms:
Dissolve the whole in the above while hot, and
apply it new-milk-warm.

This is a most powerful clyster in all disorders of the intestines, that are attended with pain and convulsions, or spasms, in those parts, such as a violent attack of the colic, proceeding from an obstruction in the urinary passage.

CHAPTER III.

—
DRINKS.

(RECIPE, No. 198.)

Fever Drink.

TAKE—Cream of tartar, turmeric, and diapente, in powder, of each one ounce;

Nitre, half an ounce :

Mix, and give it in a pint of warm gruel. To be repeated once or twice a day, or oftener, if necessary.

This drink, though simple, has been given in most kind of fevers; and has in general been attended with success. The body must be kept open either with drinks, or clysters, during the administration of the aforesaid drink, by which its salutary effects will be greatly promoted.

(RECIPE, No. 199.)

A Drink for an Inflammatory Fever.

TAKE—Tartar emetic, one drachm;

Prepared kali, half an ounce;

Camphor, one drachm, rubbed into powder, with a few drops of spirit of wine.

This drink is excellent for all kinds of inflammatory fevers; especially such as are attended with imminent danger. It may be given every four hours, or three times a day, in a pint of water-gruel.

(RECIPE, No. 200.)

A Drink for the Staggers and Convulsions.

TAKE—Pulvis antimonialis, or the white antimonial powder, two drachms;
 Assafoetida, two drachms;
 Opium, one drachm;
 Rub the two last articles in a marble mortar, with two ounces of spirit of hartshorn, until incorporated;
 Mix the whole in a pint of gruel, and give it to the horse.

This will be found excellent for the above disorders, and may be repeated two or three times a day, in cases attended with danger.

(RECIPE, No. 201.)

A Drink for the Colic or Gripes.

TAKE—Epsom salts, six ounces;
 Castile soap, sliced, two ounces;
 Dissolve them in a pint and a half of warm gruel;
 Then add tincture of opium, half an ounce;
 Oil of juniper, two drachms;
 Mix, and give them new-milk-warm.

This drink may be repeated every four or five hours, till the symptoms begin to abate.

(RECIPE, No. 202.)

A Drink for the Colic or Gripes when on a Journey.

TAKE—Tincture of opium, and oil of juniper, of each two drachms;

Sweet spirit of nitre, tincture of benzoin, and aromatic spirit of ammonia, of each half an ounce:

Mix them together in a bottle for one drink, and give it in a pint of warm gruel.

For the colic, flatulency, and colicky pains of the intestines, this drink will be found a valuable cordial. It may be repeated every two hours until the symptoms abate.

(RECIPE, No. 203.)

A Cordial Drink.

TAKE—Tincture of benzoin, of friars balsam, and spirit of ammonia aromatic, of each one ounce:

Put them in a bottle for use.

This is a very useful drink for horses that are over-heated in hot weather; and if two drachms of prepared kali, and one cordial, or one ounce of fresh powdered ginger, be added to the above cor-

dial drink, and given in a quart of cold water, it will be the same as that communicated by the author in the Globe evening paper of July 15, 1808, for the public good. In the winter season, or at any other time of the year, when the horse has not been over-heated, this drink may be given in a pint of warm ale for the colic or gripes, and flatulencies in the stomach or intestines.

(RECIPE, No. 204.)

An Ointment for Greasy Heels.

TAKE—White ointment, one pound;
 White vitriol, blue vitriol, and sugar of lead,
 in powder, of each half an ounce:
 Mix well together.

This ointment, when used, must be spread on strong brown paper, and applied over the part that greases, and bandaged on with listing. The horse may, after dressing, be turned into a dry straw-yard, and a few diuretic balls given to him, such as (No. 152, p. 199); one may be given every third day. One dressing is in general sufficient to perform a cure; if not, it may be repeated in a week after.

(RECIPE, No. 205.)

An Astringent Embrocation for Strains in different Parts.

TAKE—Camphor, two drachms, dissolved in half an ounce of strong rectified spirit of wine;
 Nitre, one ounce, dissolved in half a pint of wine vinegar;
 Spirit of turpentine, four ounces;
 White lead, or bole armenic, in powder, half an ounce;
 Aquafortis, one ounce:
 Mix, and shake them all together in a bottle for use.

These are very useful oils, and not expensive; therefore, they may be kept in readiness at a little expence, and applied to strains, sore shoulders, and bruises, in every part once or twice a day.

CHAPTER IV.

The method of preparing and compounding such Medicines as are recommended in the former part of this Book.

BALSAM OF SULPHUR, OR SULPHURETTED OIL.

TAKE—Linseed oil, one quart ;

Flowers of sulphur, eight ounces :

Boil them together over a slow fire, in an iron pot, stirring them continually till they unite.

The vessel in which these are boiled should be large enough to hold three times the quantity of the ingredients. As soon as the oil begins to act on the sulphur, the pot must be removed from the fire, or otherwise it will be liable to boil over into the fire. This balsam is good in all kinds of colds, coughs, &c.

SYRUPS.

SYRUP OF BUCKTHORN.

TAKE—The fresh juice of ripe buckthorn berries, two pounds;
Ginger, bruised, half an ounce;
Pimento, powdered, quarter of an ounce;
Raw sugar, two pounds:
Tie up the spices in a rag, and boil them to the consistence of a syrup.

This syrup is chiefly used for mixing up purging balls, as noticed in different parts of this work. The syrup should always be kept in readiness, as the preparation is easy.

SYRUP OF GARLIC.

TAKE—Garlic heads, sliced, one pound;
Boiling water, one quart:
Macerate them in a close vessel for twelve hours: strain off the liquor; then add two pounds of lump sugar, and boil to a proper consistence for a syrup.

This syrup is very useful in all disorders of the breast: such as coughs, asthmas, &c. Three or four ounces may be given with any of the drinks

recommended for those complaints in the different parts of this work.

OXYMEL OF SQUILLS.

TAKE—Clarified honey, three pounds;
Vinegar of squills, two pints:
Boil them in an iron or tin saucepan, over a slow fire, to the thickness of a syrup.

This is a most useful article as an expectorant; and is of great service in asthmas, or chronic coughs, and other affections of the windpipe. It may be given in doses from one to three ounces, together with any of the pectoral drinks, or with a cordial ball, for the above-mentioned complaints.

HONEY OF ROSES.

TAKE—Red rose-buds, freed from the *heels*, and hastily dried, four ounces;
Boiling water, three pints;
Clarified honey, five pounds;
Macerate the rose-leaves in the water for six hours;
Then mix the honey with the strained liquor, and boil to a proper consistence.

The use of honey of roses in this treatise is chiefly confined to wounds near some tender part, as the eye. See Recipe (No. 73, p. 99).

EGYPTIACUM.

TAKE—Honey, three pounds, and melt it over a fire;
then add

Blue vitriol, and verdigrease, in fine powder,
of each three ounces;

Boil them over a slow fire till they have acquired
a due consistence, and of a reddish colour.

Another method of making Egyptiacum.

TAKE—Verdigrease, in powder, five ounces;

Honey, fourteen ounces;

Vinegar, seven ounces:

Boil them over a gentle fire to the consistence of
an ointment.

A third way to make Egyptiacum.

TAKE—Verdigrease, and alum, in powder, of each three
ounces;

Blue vitriol, in powder, one ounce;

Corrosive sublimate, in powder, two drachms;

Vinegar, five ounces;

Honey, one pound and a half:

Boil them over a slow fire to a proper con-
sistence.

All these mixtures, on standing a short time, deposit a large quantity of sediment; whenever, therefore, they are used, the ingredients must be well stirred from the bottom. Egyptiacum is a medicine of great repute in modern farriery; and

when properly compounded with other medicines, will greatly assist in the cure of wounds, particularly about the foot, as may be seen in a number of recipes inserted in this treatise. The two first recipes are much milder in their operation than the latter, and will be more suitable for *fresh* wounds; while the latter will be found preferable for old ulcers, cankered feet, and running thrushes.

WHITE OINTMENT.

TAKE—White lead, one pound;
Sugar of lead, and white vitriol, of each two ounces;
Grind them on a slab (with a muller) in a sufficient quantity of common salad oil, till smooth; put them in a pot, and add,
Hog's lard, four pounds;
Bees' wax, four ounces;
Melt them together, and add them to the above:
Let them be constantly stirred until cold.

This will be found a useful ointment in cracked, or scratched heels, grease, mallenders and sallenders, sore shoulders and backs, burns and colds. It is very cooling, and will presently shell off any hard or dry scabs. A small quantity may be rubbed on the part once or twice a day.

GREEN OINTMENT.

TAKE—Elder leaves, five handfuls;
Wormwood, and plantain leaves, of each four handfuls;
Cut them small, and bruise them in a mortar;
Then boil them in twelve pounds of hogs' lard, over a slow fire:
Stir them continually until the leaves grow crisp; then strain, and press out the ointment for use.

This ointment is very cooling and softening, and excellent for all kinds of tumors, or swellings, about wounds. See (No. 41, p. 66), (No. 65, p. 92), (No. 69, p. 96), (No. 176, p. 247), and in various other parts of this work.

MARSHMALLOWS OINTMENT.

TAKE—Linsced oil, and common salad oil, of each a pint and a half;
Bees' wax, one pound;
Yellow resin, half a pound;
Common turpentine, two ounces:
Melt them altogether over a slow fire;
When dissolved, strain it, and put the whole in a pot for use.

This, like elder ointment, is useful for all kinds of morbid swellings, and is frequently prescribed, or mixed, with other articles of the same nature in many of the recipes in this treatise.

WATER OF ACETATED LITHARGE (FORMERLY CALLED
EXTRACT OF LEAD, OR GOULARD.)

TAKE—Litharge, two pounds and a half;

Wine vinegar, one gallon :

Mix, and boil to six pints, constantly stirring ;
then set it aside, and when clear, pour it off
into a bottle for use.

This preparation is an excellent medicine when properly combined with others ; on account of its cooling and repellent effects on inflammations of the eyes, and in other parts of the body. See recipes (No. 62, p. 90), (No. 70, p. 98), and other parts of this volume.

ELECTUARY OF SENNA, OR LENITIVE ELECTUARY.

TAKE—Senna, eight ounces ;

Coriander seeds, four ounces ;

Liquorice, three ounces ;

Figs, one pound ;

The pulp of tamarinds, and prunes, of each half
a pound :

Lump sugar, two pounds and a half.

Powder the senna with the coriander seeds, and sift out ten ounces with the mixed powder ; boil the remainder with the figs and liquorice in four pounds of water to one half ; then strain and press out the liquor, and evaporate it to the weight of a pound and a half ; dissolve the sugar in it ; add

this syrup by degrees to the pulps : and, lastly, mix in the powders. This electuary may be given to the quantity of six or eight ounces once a day, and is very useful in fevers, when combined with other articles of a cooling nature, to loosen the belly. See its use described in many parts of this work.

PLASTERS.

OXYCROCCUM PLASTER.

TAKE—Burgundy pitch, and yellow wax, of each one pound ;

Galbanum, and tar, of each half a pound ;

Dragon's blood, in powder, four ounces :

Let them all be melted together over a slow fire ;
when dissolved, pour them into a pot, or bucket, half filled with water : and when the ingredients begin to stiffen, roll the mass into plasters of a proper size.

This plaster is in constant use with most farriers ; it is mixed with other plasters in charges of different kinds.

PARACELSUS PLASTER.

TAKE—Diachylon plaster, eight pounds ;

Yellow resin, one pound and a half ;

Frankincense, half a pound ;

Gum galbanum, four ounces :

Melt them all together over a slow fire ; and,
when properly united, form them into plasters.

This, as well as the preceding plaster, is in constant use; and though it varies from the original, in leaving out several of the articles, yet, in quality, it is equal in point of strength and utility.

COMPOUND DIACHYLON PLASTER.

TAKE—Strained galbanum, eight ounces;
Diachylon plaster, three pounds;
Common turpentine, two ounces;
Frankincense, four ounces:
Powder the frankincense, and dissolve them together over a slow fire; then form them into plasters according to art.

This plaster is used in most charges, in order to give tenacity and to assist in discussing the indurations which are frequently left, or remain after strains, or bruises.

POWDERS.

DIAPENTE POWDERS.

TAKE—Bay-berries, gentian root, birthwort root, and hartshorn shavings, of each equal quantities, in fine powder:
Mix them together for use.

The same quantity of myrrh may be added, if thought proper; hartshorn shavings are substituted

for those of ivory, or bone shavings; as the former will dissolve, while the latter do not undergo any change.

OXIDE OF ANTIMONY WITH PHOSPHATE OF LIME
(ANTIMONIAL POWDER).

TAKE—Sulphuret of antimony, in coarse powder;
Shavings of hartshorn, of each one pound;
Mix, and put them into a wide red-hot iron pot, and stir the mixture constantly, until it be burnt into a matter of a grey colour, which is then to be removed from the fire, ground into powder, and put into a coated crucible. Lute to this crucible another inverted over it, perforated in the bottom with a small hole, and apply the fire, which is to be raised gradually to a white heat, and kept in that state for two hours. Lastly, grind the matter, when cold, into a very fine powder; and keep it in a bottle for use.

This powder is supposed to be nearly the same with that celebrated nostrum of Dr. James. It is excellent in inflammatory diseases. Two drachms may be given two or three times a day in a pint of warm gruel. The utility of this medicine is pointed out in different parts of this work.

HIERA PICRA.

TAKE—Soccotrine aloes, four ounces, in powder ;
Virginian snakeroot, and ginger, of each half
an ounce, in powder :
Mix them together, and keep them in a bottle
for use.

Another method to make Hiera Picra.

TAKE—Soccotrine aloes, in powder, one pound ;
Winter's bark, in powder, four ounces :
Mix them both together.

Either of these powders will be found useful as tonic medicines, in debilities of the stomach, intestines, and in the whole body. They may be compounded with other medicines, either into balls, or drinks, and given as alteratives to considerable advantage, in the removal, or carrying off, of the remains of any long continued disease. From eight to ten drachms of the powder, and two drachms of Castile soap, made into a ball with syrup, make a proper dose of physic for a middling sized horse.

AROMATIC POWDER.

TAKE—Cassia cinnamon, two ounces ;
Grains of paradise, one ounce and a half ;
Ginger, one ounce ;
Long pepper, half an ounce :
Reduce all into fine powder, and mix ; keep in
a stopped bottle for use.

This combination of stimulating aromatics, is an ingredient in several of the recipes in this book.

DOVER'S POWDERS, OR COMPOUND POWDER OF
IPECACUANHA.

TAKE—Ipecacuanha and opium, of each one drachm;
Sulphate of potash, one ounce:
Reduce to a fine powder, and mix; keep in a
phial for use.

These powders are excellent, when combined with chalk, and warm aromatics, to stop looseness or scouring, in horses, cows, or calves: it is kept prepared by every druggist.

TINCTURES.

TINCTURE OF BENZOIN.

TAKE—Benzoin, in powder, three ounces;
Strained storax, two ounces;
Soccotrine aloes, in powder, half an ounce;
Highly rectified spirit of wine, three pints:
Digest in a gentle heat for three days, or till
most of the gums are dissolved, and strain.

WOUND BALSAM (COMMONLY CALLED FRIAR'S BALSAM).

TAKE—Gum benzoïn, in powder, six ounces;
Balsam of Tolu, in powder, three ounces;
Gum storax, two ounces;
Frankincense, in powder, two ounces;

Gum myrrh, in powder, two ounces;
Soccotrine aloes, in powder, three ounces;
Rectified spirit of wine, one gallon:
Mix them all together, and put them in a
digestor, and give them a gentle heat for
three or four days: then strain.

Either of these balsams may be used, as mentioned in the different parts of this work. A better medicine can hardly be found in the *Materia Medica* for healing green wounds in every part of the body, particularly those on the tendons, or joints. It is frequently given internally, along with other articles, to great advantage [See (No. 203, p. 273),] in all colds, flatulency, and in other debilities of the stomach and intestines. Every gentleman, or farmer, ought to keep this medicine ready prepared in his house, as a family medicine for all cuts, or recent wounds, either among his cattle or any of his family. Thirty or forty drops, on a lump of sugar, may be taken at any time, for flatulency, or a pain at the stomach; and in old age, where nature requires stimulation.

TINCTURE OF OPIUM.

TAKE—Opium, three ounces;
Slice, and put it in a pitcher, and pour a pint
of boiling water upon it; rub it well against
the bottom, or side, of the vessel till dissolved;
then put the whole in a bottle, and add,

Rectified spirit of wine, one quart :
Let them be shaken once a day for seven days,
and strain.

Tincture of opium is certainly a medicine of great activity, and very much assists other medicines in giving relief in violent acute pains in most parts of the body.

TINCTURE OF EUPHORBIIUM.

TAKE—Gum euphorbium, in powder, three ounces ;
Camphor, half an ounce ;
Gum myrrh, in powder, one ounce ;
Rectified spirit of wine, one pint ;
Prepared kali, one ounce :
Mix them all together, and let them stand in
a gentle heat for seven days ; the bottle must
be carefully shaken once a day ; and strain.

This is a powerful tincture in cleansing old wounds of carious substances ; it is frequently used with other medicines for this purpose. See (No. 132, p. 172). The powdered gum is mostly used in strong blisters, to reduce callous swellings on the back sinews, curbs, ring-bones, and splints.

TINCTURE OF RHUBARB.

TAKE—Rhubarb, in coarse powder, two ounces ;
Lesser cardamom seeds, husked and powdered,
half an ounce ;
Saffron, two drachms ;
Proof spirit of wine, two pints :
Digest for seven or eight days, and strain.

This is as useful a medicine as any that can be kept in a house, for either man or horse. A grown-up person may take two table-spoons full, either in a little water, or alone, for the colic, flatulency, and in some cases of molten grease. The proper dose for a horse is in general half a pint, mixed in the same quantity of gruel.

TINCTURE OF SENNA (COMMONLY CALLED DAFFY'S
ELIXIR.)

TAKE—Senna leaves, two ounces ;
Jalap root, bruised, one pound ;
Coriander seeds, bruised, half an ounce ;
Proof spirit of wine, three pints ;
Digest for seven or eight days, and strain ; add
Four ounces of lump sugar, in powder :
Mix, and when dissolved it is ready for use.

This tincture, like that of rhubarb, is an excellent medicine for colicky pains in the stomach and intestines. Half a pint may be given for a dose, in a pint of gruel, and repeated, if necessary.

TINCTURE OF MYRRH.

TAKE—Myrrh, in powder, two ounces ;
Aloes, in powder, three ounces ;
Rectified spirit of wine, three pints :
Digest them in a warm heat for six days : strain,
and put the whole in a bottle for use.

The quality of this tincture in a great measure depends on the strength of the spirit; if *that* is not good, it will not be of much service. Its use will be found in a number of places in this work.

TINCTURE OF ASSAFŒTIDA.

TAKE—Assafœtida, four ounces;
Rectified spirit of wine, one quart:
Digest for seven days, and strain.

This is a useful tincture to mix along with other dressings for wounds, to prevent the flies from teasing the animal in the summer season. As an internal medicine its use will be seen in different parts of this book. The gum is likewise used in balls, with other articles, for several diseases.

SOAP LINIMENT, (OR OPODELDOC.)

TAKE—Soap, in shavings, two ounces;
Oil of rosemary, half an ounce;
Camphor, one ounce;
Rectified spirit of wine (the strongest that can be bought), one pint:
Digest the soap in the spirit of wine till dissolved; then add to the liquor the camphor and the oil, shaking them well together.

Its use is chiefly as an external application in strains, bruises, &c. See (No. 63, p. 91), and

(No. 167, p. 226). It may be given to horses afflicted with the colic, or gripes, in doses containing two ounces of the liniment, and half an ounce of tincture of opium, in a pint of warm gruel, and repeated every two hours. It will frequently remove complaints of this kind, when other medicines fail.

CAMPHORATED SPIRIT OF WINE.

TAKE—Strong rectified spirit of wine, one pint;
 Camphor, two ounces:
 Mix them together, so that the camphor may
 be dissolved.

If the spirit be good, it will be found excellent in removing pains in the joints, and other parts, which may be seen in a great number of the recipes in this book.

COMPOUND POWDER OF CHALK (COMMONLY CALLED
 DIASCORDIUM).

TAKE—Prepared chalk, half a pound;
 Cinnamon, four ounces;
 Tormentil, gum arabic, of each three ounces;
 Long pepper, half an ounce;
 Hard opium, two drachms:
 Let each article be powdered separately, and
 sifted through a fine sieve: then mix them
 well together, and keep them in a bottle for
 use.

These powders, being composed of aromatics, and the prepared carbonate of lime (formerly known by the name of prepared chalk), are a most excellent medicine for correcting acidity in the stomach and intestines. Horses that are over purged with strong drastic purges, will find almost instant relief with these powders; and likewise, in most cases, where a diarrhoea, or looseness, proceeds from the above-mentioned cause, from two to four ounces may be given, once or twice a day, in a pint of warm gruel.

DECOCTION OF WORMWOOD.

TAKE—Fresh wormwood, three ounces;
 Water, three pints:
 Boil together in a covered vessel for five minutes, and, when cold, strain.

This decoction is ordered in a drink for worms.

DECOCTION OF OAK BARK.

TAKE—Oak bark, coarsely powdered, three ounces;
 Water, three pints:
 Boil down to very near two pints, and when cool, strain.

This is ordered in several recipes.

A PRACTICAL TREATISE
ON THE
MOST PREVALENT DISEASES
OF
D O G S ;

WITH THEIR
SYMPTOMS, CAUSES, AND METHODS OF CURE.

BY
FRANCIS CLATER AND SON.

THE SECOND EDITION.

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1826.

INTRODUCTION;

OR

REMARKS ON THE DISEASES OF DOGS.

THE diseases of this animal still continue very much neglected; and, when remedies are resorted to for his relief, they are generally either totally inefficient, or else prove destructive; this arises from the want of some guide to direct the inquiries of the individual into the nature and seat of the respective complaint, and the remedies applicable for it. The following short Treatise is the result of an extensive and successful practice in this department of animal medicine; and we trust it will prove useful to such as are concerned for the welfare of this faithful and valuable animal, and point out a more rational means of treating the different maladies to which he is liable. The diseases of dogs are not numerous, nor are they difficult to be distinguished from each other, when the symptoms which attend them are minutely observed; for each disease has its particular symptoms, according to the part or parts of the body which are affected: for instance, if a dog has a wasting of

his body, and a cough, with a discharge from his eyes and nose, we immediately say that he has got the distemper; and if a purging attends the complaint, we say that the distemper is accompanied with purging, which was the case in the kennels in the year 1823. The treatment that we adopted in those cases this was to give the emetic (No. 16, p. 321), as there directed; and, after the operation of it, to administer from *two to three or four drachms of compound tincture of benzoin*, according to the dog's size and strength, twice a day in a little cold gruel, till the animal is better: this treatment has been attended with complete success. Dogs, some time before and during the sporting season, are fed chiefly on flesh, to make them more swift and durable in their paces: these, in consequence, are particularly subject to have canker in the ear, and on the outside of the ear, and also to mange and inflammatory diseases. These afflictions would not so frequently occur, were the dogs, after the sporting season is over, to be physicked, and have regular ^{ex}cise; and, were the quantity of animal food given them diminished, and that of vegetables increased in proportion to their exercise, and the state of their body. Another frequent source of disease is confinement, and feeding too much on animal food. Dogs thus kept frequently become excessively fat, and their wind is always more or less affected.

These dogs are also particularly subject to morbid affections of the liver, and when suddenly exposed to cold, or cold and wet, are very liable to be attacked with inflammatory diseases. A scanty allowance of food, and not in proportion to his exercise, is likewise very injurious to dogs; the functions of the body are thereby languidly performed and the dog loses his vigour, and is frequently affected with the mange. These animals require to be fed on something substantial; for example, if you give a dog as much strong broth as he will take, it will not support life;—on the contrary, another dog shall have nothing allowed him but the meat from which that broth was made, and shall do well, although the meat be boiled to dryness. Exercise, keeping the kennels very clean, and well ventilated, and giving them a proper proportion of animal and vegetable food, according to the nature of their exercise, and likewise occasionally physicking them, are all absolutely necessary to preserve dogs in health and vigour. It will be proper here to mention, that all the recipes in this Treatise are intended for middling-sized dogs, and their strength may be diminished or augmented according to the circumstances of the case.

CHAP. I.

BLEEDING OF DOGS.

Dogs that are confined in kennels, in great numbers, are generally fed on strong animal food, such as raw meat from the slaughter-house, &c. These dogs often become gross and inactive, and full of cutaneous disorders; likewise greyhounds, pointers, and other dogs that are fed more freely, to be in condition for the sporting season, are sometimes affected in a similar manner; these often receive much benefit by bleeding about a fortnight or three weeks before they are used in the field, the purging ball (No. 1 or 2, p. 304) being given the next morning. In slight affections of this kind, a physicking ball or two is alone sufficient. This treatment will make them more swift and durable in their paces, and will, in a great measure, keep off inflammatory diseases. The quantity of blood to be taken in these cases is from three to five ounces, or from five to eight, according to the size and strength of the animal.

Diseases of an inflammatory nature more particularly require bleeding; such as inflammation

of the lungs, stomach, and bowels; also other diseases noticed in this Treatise. The quantity of blood to be abstracted in these complaints will be mentioned in the different sections on these diseases,

When inflammatory diseases attack dogs, they are known to exist by the symptoms which accompany them; and it is by carefully attending to these symptoms that they are distinguished from each other. In inflammation of the lungs, for example, the dog appears in great distress, with his head raised and panting for his breath; symptoms which sufficiently indicate both the nature and seat of the complaint. In inflammation of the stomach, the dog is constantly retching, and immediately vomits whatever is taken into the stomach: these symptoms fully show that the stomach is inflamed. Therefore, whenever a dog becomes unwell, we ascertain the nature of his disease by the symptoms which appear, and consequently too great attention cannot be paid to them.

It is customary to bleed dogs in the jugular or neck vein, with a common lancet. Some thick packthread or tape being tied round the lower part of the neck, the vein swells, and may be seen or

felt above the ligature, about an inch from the windpipe, and on either side of the neck : the vein must now be opened, an assistant at the same time keeping the dog's head raised, which, by extending the neck, will make the vein more visible, and easier to be opened. The proper quantity of blood being taken away, untie the ligature that the bleeding may stop, and the operation is then completed. Should the ligature not cause the vein to swell enough, the blood will not flow so freely, nor can the vein be felt so distinctly ; in this case press the vein with the thumb of the left hand, and do this till the necessary quantity of blood be taken. Many sportsmen apply no ligature round the dog's neck when they bleed him, but press the jugular vein pretty forcibly with the thumb of the left hand, that the vein may swell, and then push the lancet, which is in the right hand, into the distended vein situated just above the thumb : the thumb must be kept pressed upon the vein, till the proper quantity of blood be taken, and you should have an assistant to raise his head, as above stated. If the dog be rough, separate the hair with your fingers, or else clip it off about where the vein is situated.

Sometimes dogs are bled by cutting off a small part of their tail, or making incisions with a lan-

cet on the inside of the flap of the ear ; but these modes of bleeding are rarely practised now. ' .

CHAP. II.

PHYSICKING OF DOGS.

It is very necessary to purge sporting dogs before the hunting season commences, as it carries off that sluggishness which is frequently brought on by extra feeding, and it makes them more swift and durable in their paces ; indeed they cannot be so highly prepared for the chace without it. All kinds of dogs, and especially such as are confined much and fed on flesh, should be physicked at least once a year. To those dogs that are very fat, and have bad coughs, or breathe short, and pant on the least exertion, I have found the physicking balls (No. 2 or 3, p. 304) very beneficial in these cases ; they should be given every third night, for three or four times. One or two physicking balls (No. 2 or 3) will be of great service to dogs that have twitchings, or cramp in their limbs, or such, as are subject to slight fits ; and when they are suspected to have worms ; and also for such as refuse their meat, lose flesh, and appear dull. Some purge their dogs by giving them from two to four

table spoonfuls of syrup of buckthorn, or by giving them the same quantity of castor oil, which act generally very well as common purges; but we rarely use them in our practice. The following are the forms for physicking balls that we are in the habit of preparing.

(RECIPE, No. 1.)

A Purging Ball.

TAKE—Jalap, in powder, one scruple;
 Barbadoes aloes one drachm;
 Ginger, in powder, ten grains:
 Conserve of hips, or syrup, enough to form a ball.

(RECIPE, No. 2.)

Purging Ball, with Jalap and Calomel.

TAKE—Jalap, in powder, two scruples;
 Calomel, six grains;
 Conserve of hips, or syrup, enough to form a ball.

(RECIPE, No. 3.)

Purging Ball, with Aloes and Calomel.

TAKE—Aloes, one drachm;
 Calomel, six grains;
 Ginger, in powder, ten grains:
 Conserve of hips, or syrup, enough to form a ball.

These balls are suited for dogs of a middling size; the quantity of aloes or jalap in each, of the recipes may be increased or lessened, as thought fit; and the calomel may be reduced to three or four grains, should the dog be small and delicate; but the quantity of calomel, as stated in the recipes, must, by no means, be augmented. All balls that are the least nauseous, should be neatly wrapped up in thin paper just before giving them.

How to administer Medicines to Dogs.

The mode of giving balls or liquids is to fix the dog, in an erect posture, between your knees, with his back inwards; then secure his fore legs by a hankerchief or towel brought round behind; this being done, open his mouth by pressing the upper lip with the thumb and fingers of one hand, and with the other introduce the ball beyond the tongue into the gullet; now sharply withdraw your hand, and shut his mouth, and keep his head raised till he swallows.

CHAP. III.

INFLAMMATION OF THE LUNGS.

THIS is not an uncommon disease among dogs. The symptoms by which it is known are, the animal appears in great distress, with his head raised, and panting for his breath, expressing great difficulty of breathing; there is also, for the most part, a slight cough attending the complaint.

Inflammation of the lungs generally arises from dogs going into rivers or ponds in the winter season, or being thoughtlessly plunged into the same when they are heated and much fatigued; sudden and great changes of temperature, from heat to cold, and especially after rough dogs have been clipped in the winter season, occasionally produce it. This disease frequently proves fatal from the inflammation terminating in an effusion of a watery serous fluid into the cavity, or substance of the lungs, and thereby causing suffocation.

The means of checking inflammation of the lungs, and preventing, if possible, a fatal termination, is, first, to bleed the animal as soon as ever

the complaint is discovered: if a middling sized dog, take from eight to ten ounces of blood from the neck vein; and if a large dog, from ten to fourteen ounces may be taken, according to his strength, and the violence of the symptoms, and repeat the bleeding in five or six hours after, if there be much difficulty of breathing. Immediately after bleeding, the following blistering liniment, or the blistering essence in Farriery (No. 133, p. 174), must be well rubbed in for the space of a quarter of an hour between his fore legs and the sides of his chest, and repeated three or four times a day for the first two or three days.

(RECIPE, No. 4.)

Blistering Liniment.

TAKE—Cantharides, in fine powder, half an ounce;
 Yellow basilicon, two ounces;
 Oil of turpentine, one ounce:
 Mix well together for use.

After blistering give the following ball as soon as possible, and repeat it every day, if necessary, for three or four times, or oftener; this ball will purge him, and also increase insensible perspiration: if his bowels continue sufficiently loose, after giving the first ball, omit the jalap, &c.

(RECIPE, No. 5.)

Ball for Inflammation of the Lungs.

TAKE—Calomel and antimonial powder, of each four grains;
 Jalap, in powder, fifteen grains to half a drachm
 (according to size and strength):
 Syrup enough to form a ball.

The dog, in this, as well as in the other severe inflammatory disorders, should be kept in a moderately warm place, and his comfort studied as much as possible; his food should consist principally of flour, or wheat meal boiled in milk, or broths; he may also have a small quantity of meat.

CHAP. IV.

INFLAMMATION OF THE STOMACH.

WHEN the stomach becomes inflamed, the dog is constantly retching, and appears very distressed; he vomits every thing that is given him, and he is also extremely thirsty. This disease is not often met with amongst dogs as a primary affection, but when the bowels are inflamed the stomach is very apt to participate in the inflammation, which

is known to be the case by the symptoms just mentioned.

The cure must first be attempted by taking from six to ten ounces of blood from him, if a middling sized dog, and the bleeding may be repeated in the space of six or eight hours if the symptoms do not much abate. After bleeding, blister him on the belly with the following oils.

(RECIPE, No. 6.)

Blistering Oils.

TAKE—Cantharides, in fine powder, half an ounce;
Olive oil, two ounces;
Oil of turpentine, one ounce:
Mix, and rub it on the belly for about ten minutes, and do this three or four times a day, till the dog be better.

The following clyster should also be administered.

(RECIPE, No. 7.)

Clyster.

TAKE—Broth, or warm water, one pint;
Epsom salts, two ounces;
Linseed oil, one ounce:
Dissolve the salts in the warm broth, or water, and then add the oil.

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Before the clyster is given, a finger should be passed up his fundament, to bring away the hardened excrement, if there be any. The clyster should be administered with a common pipe and bladder. As soon as the dog has received the clyster, directly hold down his tail for the space of four or five minutes, that he may retain it.

Inflammation of the Stomach from Poisons.

Inflammation of the stomach arising from the mineral poisons, viz. arsenic, or corrosive sublimate, is attended with almost similar symptoms to those mentioned above, though in general the symptoms are more severe. When these poisons are suspected to have been given to dogs, immediately administer the following emetic.

(RECIPE, No. 8.)

TAKE—Sulphate of zinc, half a drachm;
Ipecacuanha, in powder, one scruple;
Water, an ounce and a half:
Mix, and give it.

Let the dog have as much milk or linseed tea as he will drink.

Poison from Lead.

Dogs that lick paint containing lead, are often

troubled with severe colicky pains in their bowels; when this occurs give the physicking ball (No. 2, p. 304) as soon as possible, and repeat it every day for three or four times.

The vegetable poisons, crow fig, coculus indicus, water of common laurel, and the hydrocyanic acid, generally kill dogs in a few minutes, causing convulsions and death. A drachm or two of the raspings of crow fig is mostly enough to destroy a large dog; or a few drops of hydrocyanic acid, put upon the tip of the nose, with a glass rod, will kill him in a few minutes.

The emetic (No. 8, p. 310) would be proper to be administered, were the nature of his complaint quickly enough discovered; but in these instances remedies generally come too late.

CHAP. V.

INFLAMMATORY COLIC.

WHEN the bowels are attacked with this disease, the dog is restless, and appears evidently labouring under much pain, and if the belly be pressed with the hand, the animal immediately

flinches; he is mostly sick, and sometimes vomits; there are always feverish symptoms present; as thirst, loss of appetite, 'mouth dry and hot, and his limbs stagger with him when he attempts to walk; his bowels are also generally very bound.

The most common cause of this complaint is exposure to cold and wet, particularly when the dog is fatigued, or unwell; it sometimes proceeds from the bowels being very bound, and occasionally happens without any manifest cause.

The dog must first be bled to the same extent as directed in the last section for inflammation of the stomach; then blister his belly with the oils (No. 6, p. 309), and repeatedly administer the clyster (No. 7, p. 309.)

If the dog is not inclined to vomit, the following ball should be given, and repeated every six hours, until the bowels are operated upon.

(RECIPE, No. 9.)

TAKE—Calomel, four to six grains (according to size and strength);

Opium, in powder, half a grain;

Barbadoes aloes, one drachm:

Syrup, enough to form into a ball.

I scarcely need repeat that all nauseous balls should be wrapped in very thin paper just before giving them. The following may be given in six hours after the ball, if the ball does not operate before.

(RECIPE, No. 10.)

Purgative Drink.

TAKE—Castor oil, one ounce and a half;

Common infusion of coffee, or gruel, two table spoonfuls:

Pour the castor oil upon the coffee, and give it.

Some immerse the dog, in this complaint, up to the neck in a tub full of warm water for fifteen or twenty minutes, which will, undoubtedly, do much good in this as well as in all inflammatory disorders, if the dog be properly dried after, and kept tolerably warm; but if this is not particularly attended to, it will do more harm than good; it may be repeated twice a day for the first two days of the disease.

CHAP. VI.

THE WINDY, OR FLATULENT COLIC.

THIS kind of colic depends upon a spasmodic contraction of one or more parts of the bowels, and arises from some irritating cause ; as constipated bowels, worms, exposure to cold and wet, indigestible matter taken into the stomach, and sometimes by licking paint containing lead.

The disease is attended with the following symptoms ; the dog has pain of the bowels, which sometimes causes him to roll and tumble about ; sometimes the animal turns round and round, with his eyes inclined to the part affected ; his eyes look dull and heavy ; bowels mostly very bound, and often the rectum appears to be loaded, and visibly pressed to the fundament, which brings on a frequent straining to expel the fæces ; he is also sick, and sometimes vomits. Should worms be the cause of this complaint, it will generally be discovered by some previous symptoms, as mentioned in the section on worms. If the complaint be not checked, inflammatory symptoms will come on ; as, the dog being restless, sick at his stomach,

breathing rather accelerated, and if the belly be pressed, it gives him pain.

The treatment of this disease consists, from whatever cause it is induced, in relieving the spasm, evacuating the bowels, and preventing a tendency to inflammation, all which will be, in most cases, effected by the following

(RECIPE, No. 11.)

Purging Ball for Flatulent Colic.

TAKE—Opium, in powder, two grains;
Calomel, four to eight grains (according to size and strength);
Aloes, one drachm;
Oil of caraway, six drops:
Syrup, or conserve, enough to make into a ball.

Repeat this ball every four or six hours, until the bowels are acted upon. The clyster (No. 7, p. 309) should be administered previously, as noticed before, passing the finger up the dog's fundament to bring away the hardened fæces, which would obstruct the passage of the clyster. If the ball (No. 11) does not operate in the course of six or eight hours, and the animal is not relieved, but his belly painful when pressed, take, if a middling-sized dog, from six to eight ounces of blood from

him, and you may also have recourse to the warm bath. (See p. 313.)

BILIOUS COLIC.

The bilious colic occasionally seizes dogs, and is accompanied with a vomiting and purging of bilious matter, with pain in the bowels, and much thirst.

The causes that induce flatulent colic generally also give rise to this affection. The following ball should be given to the dog as soon as possible.

(RECIPE, No. 12.)

TAKE—Opium, in powder, three grains;
Aromatic powder, and Colombo, in powder, of
each half a drachm;
Oil of peppermint, three drops:
Syrup, or conserve, enough to form a ball.

Repeat this ball every three or four hours until the vomiting and purging greatly abate.

If the ball is rejected by vomiting, administer the following clyster.

(RECIPE, No. 13.)

TAKE—Thin warm gruel, eight ounces;
Tincture of opium, two to three drachms:
Mix, and repeat it if necessary.

When the vomiting and purging have in a great measure ceased, the purging ball (No. 11, p. 315) should be given, and it may be repeated in two or three days.

Fomentations, or immersing the dog in a warm bath, will be proper if the disease be severe and obstinate.

CHAP. VII.

DISTEMPER.

SOME years this is a very destructive disease, particularly to young and delicate whelps; as greyhounds, pointers, terriers, &c.: those that have come to their full growth, and are strong and well fed, are much more likely to recover. The disease would by no means prove so destructive to dogs as it does, were it more judiciously treated by sportsmen, but they are too apt to rely implicitly on some recipe which they mostly possess, and which they commonly extol as a specific; and as such, administer it indiscriminately in every case

and stage of the disorder, whatever the symptoms may be, and thus too often induce a fatal termination of the complaint.

The symptoms which most generally attend the distemper are, the dog appearing dull and stupid, with a gradual wasting of his body, which is soon succeeded by a watery, and then a thick, discharge of matter from the eyes and nose; his hind legs are often much affected, so that he scarcely can walk, and sometimes is quite unable to rise upon his legs; in many cases the dog keeps frequently shaking his head, snorting, and frothing at the mouth, and the head is often drawn to one side; the dog looks starved, and constantly approaches the fire; coughs a little, and sometimes makes a rattling noise in his breathing; takes little or no food; sometimes has much sickness and vomiting; the bowels in some are natural, in others a looseness attends the complaint; and in some instances there are severe gripings of the belly, without looseness being present. This disease attacks dogs in a variety of ways; in some years, the chief symptoms are convulsive fits, and a wasting of the body; and at other times the principal symptoms are a severe looseness, and gradual wasting; and often a convulsive fit precedes its attack; but the most usual symptoms that accompany the distemper

are those above stated. Occasionally also the eyes are more than usually affected. See diseases of the eyes (*post*, chap. xvi.)

Very few dogs escape this disease, and it often comes on without any perceptible cause whatever; exposure to cold and wet, or a scanty allowance of food, will often induce it: contagion is also a common source.

I consider the distemper to be a fever accompanied with a peculiar inflammation of one or more parts of the mucous membrane; as the mucous membrane of the nose, and lachrymal passages of the eyes, which inflammation increases, and alters the discharge from these parts: also the mucous membrane lining the windpipe, the bronchial tubes, and the lungs themselves, is most commonly inflamed in distemper, which irritates and obstructs these passages, causing cough and often a rattling in the throat. The mucous membrane lining the bowels is sometimes inflamed, and then a purging is usually the consequence; and when the mucous membrane of the stomach is inflamed, it produces sickness and sometimes vomiting.

The treatment of distemper greatly depends upon the symptoms that accompany it, and this

should be strictly attended to. When a dog is discovered to have this disease, and it be not accompanied with looseness, the following ball should be immediately given, which will both vomit and purge him.

(RECIPE, No. 14.)

TAKE—Tartarised antimony, three grains;
 Jalap, in powder, ten grains:
 Conserve, enough to form a ball.

Repeat this ball every third day for three times. These balls will effect a cure in slight cases, without any other medicines being given. If the disease be severe, or attended with a malignant fever, the following restorative ball should be administered twice a day, commencing the day after the ball (No. 14) has been given the third time.

(RECIPE, No. 15.)

Restorative Ball for the Distemper.

TAKE—Colombo root, in powder, two scruples;
 Aromatic powder, and rhubarb, in powder, of each ten grains;
 Subcarbonate of soda, fifteen grains;
 Oil of peppermint, three drops:
 Syrup, or conserve, sufficient to form into a ball.

Continue this ball till the animal be greatly recovered.

If the distemper commence with looseness, the following should be given instead of the ball (No. 14).

(RECIPE, No. 16.)

TAKE—Ipecacuanha, in powder, half a drachm to two scruples;
 Water, two ounces :
 Mix, and give one every third day for three times; or make it into a ball with conserve, and give it.

A short time after the operation of the first ball, or draught (No. 16), give either of the following, and repeat once or twice a day till the looseness be stopped.

(RECIPE, No. 17.)

TAKE—Rhubarb, and gum kino, in powder, of each ten grains;
 Prepared testaceous powder, one scruple :
 Make into a ball, with conserve of hips.

Or the following may be given.

(RECIPE, No. 18.)

TAKE—Extract of rhatany, ten grains;
 Opium, in powder, three grains;
 Prepared chalk, one scruple :
 Make into a ball, with conserve of hips.

These balls may be given at any period of the disorder, should a looseness come on. The restorative ball (No. 15, p. 320) should be given as there directed, as soon as the looseness is stopped, if it be required.

When convulsions or fits prevail in the beginning of distemper, the ball (No. 14, p. 320) must be given every third day for three times; and the following anti-spasmodic ball should be administered once a day, till the convulsions or fits have disappeared.

(RECIPE, No. 19.)

Antispasmodic Ball.

TAKE—Assafoetida, one scruple;
 Antimonial powder, four grains;
 Opium, in powder, two grains:
 Conserve sufficient to form into a ball.

This ball will be proper in any stage of the disorder, if convulsions or fits come on.

If the head seem much affected, bathe it for the space of five or ten minutes, two or three times a day, with equal parts of cold vinegar and water. The restorative ball (No. 15, p. 320) may be given, after the balls (No. 19) are discontinued, if required.

Lastly, when the dog begins to recover, let him have a good and generous diet, and moderate exercise; let his kennel also be well cleaned out and fumigated.

(RECIPE, No. 20.)

Fumigation.

TAKE—Common salt and nitre, of each four ounces;
Oil of vitriol, four ounces:

Mix the salt and nitre in an earthen vessel, then put it in the kennel, and gradually pour the oil of vitriol on them, and stir them together with a stick, and immediately leave it to prevent inhaling the noxious fumes, closing the kennel door at the same time.

CHAP. VIII.

YELLOW, OR JAUNDICE.

THIS disease is not of unfrequent occurrence among dogs: its presence is first discovered by the animal appearing dull, and unable to bear much fatigue; and when more closely inspected, a yellowness is perceived; the eyes, mouth, and ears are of a yellow hue, as is also the whole skin of the body, which is very conspicuous when the dog's hair is of a light colour; the animal has an indifferent appetite, and is frequently sick at his

stomach; and his bowels are also very bound. We have known dogs, when taken out for the chase, at the commencement of this complaint, lie down in the fields incapable of proceeding any further.

We lately examined a dog that died of this disease, and found in the gall-bladder, and the duct that conveys bile into the intestines, four small gall-stones: these impeded the passage of bile into the intestines, and the bile consequently entered the circulating system, and produced a yellowness. Diseases of the liver, or a spasm of the duct, that conveys bile into the intestines, seem sometimes to occasion this disease.

The first remedy to be administered in this complaint, should be the following emetic.

(RECIPE, No. 21.)

Emetic for Jaundice.

TAKE—Tartarised antimony, two grains;
 Ipecacuanha, in powder, one scruple:
 Make into a ball with conserve, or mix it in thin gruel, and give it every other day for three or four times.

The day after the operation of the emetic, give the following ball, and repeat it every third or fourth day, until the disease be cured.

(RECIPE, No. 22.)

TAKE—Calomel, four grains ;
Rhubarb, in powder, two scruples ;
Castile soap, half a drachm :
Beat into a ball, and give it.

If the dog pants, and appears to have much pain at the commencement of the complaint, take, if a middling-sized dog; from five to eight ounces of blood from him, a short time before giving the emetic. Bleeding will also be proper at any time in the complaint, if the symptoms be present.

CHAP. IX.

DISEASED AFFECTIONS OF THE LIVER OF DOGS.

IT is almost impossible to ascertain when the liver of dogs is affected, until the disease has made some progress, in which case the dog loses his appetite, is thirsty, and looks dull; his coat stares on his back, and his eyes and mouth are of a yellowish hue; the animal pants, and soon becomes fatigued, when exercised; his bowels are almost always very constipated, and sometimes a looseness comes on, attended with painful straining: when the disease has continued any time, the

dog commonly becomes much emaciated, and in severe cases the liver may sometimes be felt enlarged on the right side of his belly. These affections of the liver may seem somewhat to resemble jaundice, but the jaundice attacks dogs suddenly, without any previous indisposition being observed, and is almost immediately known by the yellowness of the eyes, ears, mouth, and the skin : on the contrary, when the liver is diseased, the symptoms above mentioned come on more gradually, the dog becomes dull and inactive, his coat stares, and the yellowness is not so conspicuous as in jaundice.

The treatment, as recommended for jaundice, will be found generally efficacious in the cure of these diseased affections of the liver. When the dog begins to recover, discontinue the ball (No. 22), and give the following cordial restorative ball once a day for a week.

(RECIPE, No. 23.)

Cordial Restorative Ball.

TAKE—Yellow bark, one scruple;
Aromatic powder, two scruples;
Ginger in powder, ten grains;
Oil of aniseeds, five drops:
Syrup, sufficient to form into a ball. ~

CHAP. X.

FITS.

DOGS are very subject to fits, and they arise from different causes, which must be particularly attended to, as their treatment greatly depends upon the cause that induces them; these causes will be stated after the symptoms are described. The symptoms of fits are various, and their attack sudden; sometimes the dog suddenly stands as if affrighted, and in a few moments springs up two or three feet high, and immediately falls down as though shot; while in this state, he has convulsive motions of the tail, limbs, or some part of the body; sometimes his eyes are turned up, and his face distorted; frequently, also, he froths at the mouth, and grinds his teeth; his breathing is generally hurried, and often he pants excessively; is sick at the stomach, and his bowels are frequently very constipated. Some dogs, when taken, are seized with a violent heaving of the chest, and appear almost suffocated; they then almost immediately dart forwards, and fall prostrate on the ground, quite stiff, except convulsive motions of the tail, limbs, or other parts of the body; they also generally froth at the mouth.

The characteristic symptoms of fits, then, are convulsive motions of one or more parts of the body, while, at the same time, the dog is in a great measure insensible. Sometimes the dog appears dull before a fit comes on, and at other times there is no previous symptom whatever.

A fit often precedes an attack of the distemper; in some seasons the chief symptoms attending distemper are fits, and a wasting of the body; and when the distemper has continued some time, and been very severe, fits frequently come on, and are always, in such cases, accounted an unfavourable presage: the remedies adapted for fits in the distemper you will find in the section on that disease.

Fits sometimes arise from the irritation of worms in the intestines, and when this is the case the presence of these animals is mostly detected by other accompanying symptoms; these fits require the same remedies as directed for worms. (See Worms.)

Sometimes costiveness or a foul state of the bowels, and sometimes the constitutional irritation arising from teething causes fits: in these instances

give the physicking ball (No. 2 or 3, p. 304) every third or fourth day.

Another, and not an unfrequent cause of fits, and which commonly prove fatal, arises from the rearing of too many puppies from one mother. In these cases purging medicines are not so advisable at first, but you should commence with the following. If the dog's bowels are bound after giving the ball two or three times, administer two or three table spoonfuls of castor oil.

(RECIPE, No. 24.)

TAKE—Aromatic powder, one drachm ;
Valerian, in powder, one scruple ;
Oil of peppermint, four drops :
Make into a ball with conserve, and give two or three times a day, till the animal be better.

Fits, that are not apparently induced by any of the above causes, but seem to depend upon some peculiar state of the constitution, will require the following treatment :

During the fits you may sprinkle his face with cold water, and when they are off, give him the physicking ball (No. 2 or 3, p. 304). If the fits return after the operation of the physicking ball, administer the following once or twice a day.

(RECIPE, No. 25.)

TAKE—Assafoetida, fifteen grains ;
Valerian, in powder, one scruple :
Syrup, or conserve, enough to form into a ball.

CHAP. XI.

WORMS.

WORMS are very apt to infest the intestines of dogs, and prove very injurious to them. The symptoms which indicate the presence of these animals are, the dog appears lean and indisposed ; he has a hackling cough, sometimes eats twice as much as dogs usually do ; his coat stares ; he has frequent twitchings of his belly ; his bowels are irregular, sometimes very bound, and at others loose, and his fæces of a slimy appearance. The dog's belly is frequently hard and tumid ; the worms also often cause fits. Dogs that have worms often void them at the anus, or by the mouth, without medicines being giving, and even when they were not suspected ; but this arises commonly from the person being unacquainted with the symptoms of worms. Sometimes indeed worms are not readily detected, particularly in puppies ; but there is generally in them some one symptom or other to

disclose their presence ; they always prove more or less prejudicial ; they prevent the whelp from thriving, and often there is a wasting of its body, the bowels are loose, and his dung is of a glairy consistence, the whelp looks starved and has frequently slight twitchings of the belly. Sporting dogs are often rendered unfit for the chase by worms ; they cannot be got into suitable condition, and their swiftness and durability are thereby much impaired.

Dogs are subject to five kinds of worms. One of the most frequent and hurtful of these, is a *round thin worm*, two or more inches long, and of a light yellow colour ; these not unfrequently infest the stomach, and are sometimes brought up by vomiting. Another kind to which dogs are liable is, a *thick round worm*, about an inch long, and of a reddish hue, with a small head. I have known swarms of these expelled after administering the balls (No. 26, p. 332, and 17, p. 321). The third kind that dogs are subject to, and the least pernicious of any, is a small white worm ; these chiefly infest the rectum, and are sometimes voided in great numbers : it is for this kind of worms that a clyster, composed of one pint of *decoction of wormwood*, with one drachm of *aloes* dissolved in it, is very efficacious, together with the

worm ball (No. 29, p. 334), in expelling them. Dogs are liable to a *small white flat* worm; these are sometimes expelled in great numbers, after giving worm medicines. The last kind to be mentioned is the *tape worm*, which is a long, flat, and jointed worm, measuring from one to thirty feet or more, and is of a whitish colour.

We are induced to believe that worms are propagated from a foul or slimy state of the bowels, which state arises probably from a chronic inflammation of the mucous membrane of the intestines, that increases and perverts the natural secretion of its mucus. This slime or mucus of the intestines, undergoing some change, has the power, as we suppose, of generating worms.

The treatment that we have adopted in these cases, whatever kind of worms the dog may be troubled with, is generally, first, to administer the following mercurial ball in the evening, which will vomit and purge him, and early the next morning to give him the aloetic worm ball.

(RECIPE, No. 26.)

Mercurial Worm Ball.

TAKE—Turbith mineral, four to six grains;
Worm seed, in powder, two scruples:
Make into a ball with conserve.

If it be required for a whelp, put only two grains of turbith mineral in the ball, and likewise reduce the quantity of aloes, in the following aloetic worm ball, to half a drachm.

(RECIPE, No. 27.)

Worm Ball for Dogs.

TAKE—Barbadoes aloes, one drachm ;
Worm seed, in powder, two scruples ;
Oil of savin, four drops :
Conserve sufficient to make into a ball.

We do not often repeat the mercurial worm ball, but the aloetic one should be given twice a week for a week or two, or longer, if thought necessary, and the dog can bear it ; though in dogs that are delicate, we commonly have recourse to the following ball, after giving the mercurial and aloetic ball.

(RECIPE, No. 28.)

Worm Ball with Tin and Æthiop's Mineral.

TAKE—Powder of tin, one scruple ;
Æthiop's mineral, one scruple :
Conserve or honey sufficient for a ball.

It will be proper, if it be for a whelp, to put only half a drachm of powder of tin and Æthiop's mineral in the ball. This ball should be given two or three times a week.

The following will also be found an excellent ball for worms; we frequently make up a great number of these for sportsmen.

(RECIPE, No. 29.)

Worm Ball.

TAKE—Calomel, five to eight grains;
 Barbadoes aloes, half a drachm;
 Ginger, in powder, ten grains;
 Oil of wormwood, four drops:
 Make into a ball with conserve, or syrup of
 buckthorn, and give one every fourth day,
 for three or four times.

CHAP. XII.

MANGE.

WE now come to treat of that well known cutaneous disease the mange. There are two kinds to which dogs are commonly liable; one which is called simply the *mange*; and there is the *red mange*, named so from the red colour of the skin. There is another cutaneous disease that dogs are subject to, called *surfeit*; this bears some resemblance to the mange, and yields pretty nearly to the same remedies. I shall therefore speak of it in this chapter.

The mange is generally first discovered by the animal rubbing himself, and when the parts affected are examined, fissures, or pimples on the skin are observed, many of which are ruptured by the rubbing, and exude a serous humour, which becomes inspissated, and forms scabs; this is very soon the case over all the affected parts, as the shoulders, back, and hind parts, and sometimes the legs.

The mange in some few instances, and especially in sporting dogs that are well fed, puts on a different appearance from common, and does not spread so much, but is confined to a part of the face, neck, or joints; this variety of mange is more deeply seated than common mange, and hence the parts are somewhat swollen, and when inspected, small ulcers are seen from which oozes a viscid humour, that gives the skin a bright appearance. We have in these cases cured the dogs by giving one or two of the purging balls (No. 2 or 3, p. 304), and anointing the affected parts well with the liniment (No. 31, p. 339) every third day for three or four times; and it will be proper to give an alterative ball every evening for a week or so.

The *red mange* I scarcely need describe, as its name is sufficiently indicative of its appearance;

the parts mostly affected are the belly, the thighs, and legs; and sometimes the whole body. The parts look excessively red, as if blood was ready to gush forth; it is accompanied with much itching, and the skin is almost denuded of its hair. The treatment to be adopted in red mange is somewhat different from that of common mange; it will be sometimes requisite in these cases to take a few ounces of blood from the dog, to allay constitutional irritation; and the mercurial liniment too (No. 32, p. 340) should not be commenced with, till the dog has been either bled or purged, and then begin a day or two after, and anoint him well every third day for three or four times, and give him the alterative ball (No. 35, p. 341) every day.

Sometimes, though rarely, the mange commences with a severe fever and tumefaction of the parts, the dog pants, refuses to eat, and appears much distressed; some part of the body, as the head or neck, swells, which is soon succeeded by an ulceration of the parts. When cases of this nature occur, it will be necessary to take from four to six ounces of blood from him, if a middling sized dog, and to give the purging ball (No. 2 or 3, p. 304) once or twice. After bleeding and purging, it will be proper to anoint the affected parts every day with the ointment (No. 33, p. 340), which will complete the cure.

Dogs are not unfrequently attacked with a *surfeit*, in which case the coat stares, and looks unhealthy, the skin is here and there denuded of its hair, and scurfy, and sometimes scabs appear. Surfeit is mostly induced by the dog being exposed to cold, or cold and wet, or drinking cold water when heated and fatigued; and it sometimes arises from bad habit of body, caused by improper diet, as giving the dog too much oatmeal, salt meat, &c. Sometimes I have known it arise from some previous disease. It is generally requisite in surfeit, if the dog be well fed, to bleed and give him a physicking ball: let him have also an alterative ball every day, and anoint him well every other day for three or four times with the ointment (No. 33, p. 340.)

I have occasionally known dogs have a surfeit when there has been no eruption on the skin; but the animal looked dull, and lean, and his coat stared. The alterative ball has been alone sufficient, in these cases, to restore him to his former healthy state.

We shall not enter into a long detail concerning the nature of mange; for when we consider that two opposite states of the system, viz. a repletion of the system, and the contrary, are both alike

disposed to generate it, we must necessarily conclude that its nature is involved in great obscurity. All we can therefore say concerning its nature is, that the salutary functions of the skin in mange are peculiarly and morbidly altered; but whether this specific action of the skin be an increased or diminished action, we have no means of ascertaining. Dogs are particularly liable to the mange that are confined in ill ventilated kennels; and where cleanliness is not duly observed, the atmosphere of such kennels becomes contaminated with effluvia, which renders it very unhealthy, and unfit to preserve entire the salutary functions of life. Infection is another source by which this disease is propagated; but some dogs are more disposed to take it than others, and indeed there are dogs which, though exposed to it, do not take it. Mange is likewise hereditary, but I do not mean by saying the disease is hereditary, that it is congenital, but that the whelps of a mangy bitch, or those got by a mangy dog, have a strong predisposition to the disease from peculiarity of constitution.

In the treatment of common mange, it will be proper to observe, that in the generality of cases it easily admits of a cure; but sometimes it is obstinate, and requires a more patient perseverance in the application of remedies. Either of the two

first recipes will alone be found particularly efficacious in curing the mange; sometimes however, in bad cases, it will be requisite to expedite the cure by administering the alterative ball (N^o. 35, p. 341) every day for some time; and I think it adviseable, in most cases, except those that are very slight, to give an alterative ball every day for a week or more, as thought proper.

(RECIPE, No. 30.)

Ointment for the Mange.

TAKE—Quicksilver, three ounces;
 Balsam of sulphur, two ounces;
 Oil of turpentine, three ounces;
 Soft soap, one pound;
 Cape aloes, in powder, half an ounce:
 Rub the quicksilver with the balsam of sulphur, in a marble mortar for three or four hours, or until the globules completely disappear; and while rubbing keep gradually adding the oil of turpentine; having done this, you may then mix the whole well together for use. It must be well rubbed in on the affected parts every third day for three or four times.

(RECIPE, No. 31.)

Liniment for the Mange.

TAKE—Flower of sulphur, four ounces;
 Sulphur of vivum, four ounces;
 White precipitate, one ounce;

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Strong mercurial ointment, one ounce ;

Cape aloes, in powder, half an ounce ;

Neatsfoot oil, one pint and a half:

First rub the powders together in a mortar: then put in the ointment, and gradually add the oil ; it must be stirred when used. The affected parts must be well anointed with this liniment every third day for three or four times.

(RECIPE, No. 32.)

Mercurial Liniment for the Red Mange.

TAKE—Mild mercurial ointment, four ounces ;

Oil of turpentine, three ounces ;

Cape aloes, in powder, half an ounce :

Mix well together, and anoint the parts every third day for three or four times. Many sportsmen have their dogs regularly dressed with this liniment two or three weeks before the hunting season commences ; it is supposed to improve their scent, and make them more fit for the chase.

(RECIPE, No. 33.)

Mild Ointment for the Mange and Surfeit.

TAKE—Oil of vitriol, half an ounce ;

Hog's lard, eight ounces :

Mix, and anoint the dog every day for three or four times, or oftener if required.

This ointment is used in surfeit, and slight cases of mange.

(RECIPE, No. 34.)

Lotion for the Mange.

TAKE—White hellebore root, bruised, two ounces;
 Water, three pints, boil down to two pints and strain;
 Sal ammoniac, two drachms;
 Sublimate, one drachm;
 Cape aloes, half an ounce:
 Dissolve the sal ammoniac, and other ingredients, in the decoction.

This lotion is sometimes used to cure the mange, when greasy applications are objected to.

(RECIPE, No. 35.)

Alterative Ball.

TAKE—Æthiop's mineral, half a drachm;
 Flower of sulphur, half a drachm;
 Cream of tartar, half a drachm;
 Honey enough to make into a ball.

One of these balls is given every day, and continued for some time.

CHAP. XIII.

RHEUMATISM.

THIS disease frequently attacks dogs, and especially such as are rather old, and accustomed to the warm house; these become tender, and more apt to be affected by change of temperature; hence when they are suddenly exposed to cold, or cold and wet, the perspiration frequently becomes obstructed, and rheumatism is often the consequence.

Rheumatism generally seizes the back, and hind parts, in which case the dog is scarcely able to move, and if he attempts it gives him great pain, and he then rather drags his legs along than moves them; for on the slightest motion of the affected parts, the pain is aggravated. Sometimes the fore legs are affected at the same time, and then the animal loses almost entirely the power of his limbs.

Rheumatism not unfrequently attacks the neck and fore legs; when this happens the neck is stiff and rather drawn to one side, and the dog limps with his fore legs as he walks.

When the pain attending rheumatism is gone,

the affected limb or limbs often for a long time remain weak and stiff, and sometimes continue so through life; frequently, on the contrary, if the dog be judiciously treated, the disease leaves him in a short time as active as ever; and this is sometimes the case when no medicines are administered. Rheumatism is very apt to return again after the first attack, and frequently causes the joints in old dogs to become enlarged.

It will be proper, at the beginning of this disease, to administer the physicking ball (No. 3, p. 304), and if the first ball does not operate, repeat it. After the bowels have been opened, commence with the following ball, and give one every day for a week, if required.

(RECIPE, No. 36.)

Ball for Rheumatism in Dogs.

TAKE—Calomel, four grains;
 Guaiacum, in powder, one scruple;
 Opium, two grains;
 Syrup, or conserve, enough to form into a ball.

The following liniment must be rubbed on the affected parts, twice or three times a day.

(RECIPE, No. 37.)

Liniment.

TAKE—Opodeldoc, two ounces;
Water of pure ammonia, two ounces;
Oil of turpentine, two ounces;
Mix, and shake when used.

The blistering oils (No. 6, p. 309) are likewise very serviceable when the disease is obstinate, and situated in the hind parts; they should be well rubbed on the affected parts, and also along the back-bone, two or three times a day. The blistering oils will also be found very beneficial when the fore legs and neck are affected, and may be had recourse to in case the parts are not relieved by the stimulating liniment. Putting the dog in warm water (see p. 313) for the space of fifteen or twenty minutes, is frequently of great utility in the commencement of rheumatism.

CHAP. XIV.

DIFFICULTY OF BREATHING IN DOGS.

DOGS that are much confined to the house, have little exercise, and are kept in a pampered state, frequently become very fat and inactive, and are often troubled with a difficulty of breathing and a cough. The difficulty of breathing in these dogs

is very much increased by exercise, the heat of the fire, dust, &c. A cough also usually attends this affection of the lungs, which sometimes harasses the dog exceedingly. In some cases there is a rattling in the throat; this rattling in the throat commonly arises from an effusion of coagulable lymph in the windpipe, or its branches.

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Difficulty of breathing in dogs most frequently proceeds from a superfluous quantity of fat about the heart and its vessels, which causes a congestion of blood in the lungs, and thereby impairs their functions. Sometimes this difficulty of breathing seems to arise solely from congestion of blood in the lungs, or too great a quantity of blood passing through them, which preternatural quantity of blood prevents the lungs from collapsing to the same extent as when these organs are in a perfect state of health.

The mode of removing this affection of the lungs appears obvious; it consists in averting the causes that induce the complaint, which will mostly be accomplished by administering occasionally any of the physicking balls (p. 304), and by increasing his exercise, and lessening the quantity of food given to him. It will be requisite sometimes to give two or three physicking balls a week,

while in other cases, less severe, one will be sufficient, if the other means be strictly attended to.

When this affection of the lungs is attended with a severe cough, and gradual wasting of his body, the following ball must be given.

(RECIPE, No. 38.)

TAKE—Colombo root, in powder, two scruples;
 Elecampane, one scruple;
 Squills, in powder, four grains;
 Opium, one grain;
 Lucatellus's balsam, one drachm:
 Make into a ball, and give one every day.

CHAP. XV.

OF A COUGH.

DOGS are subject to coughs independent of the distemper or worms. The cough that arises from exposure to cold, or cold and wet, after a dog has been overheated, is more constant and severe, than what occurs in distemper, and is easily distinguished from the cough of distemper, by its not being accompanied with a gradual wasting of the body, and other symptoms peculiar to that disease. The cough in worms is attended with staring of

the coat, and other signs sufficiently characteristic of the disease. .

It will be necessary, when a dog has a bad cough, first to open his bowels, by giving him an ounce or more of *castor oil*, and then to administer the following ball morning and evening.

(RECIPE, No. 39.)

TAKE—Nitre, one drachm ;
 Antimonial powder, four grains ;
 Opium, one grain ;
 Lucatellus's balsam, one scruple :
 Make into a ball.

If the cough be very severe, and attended with a difficulty of breathing, it will be proper to take from three to five, or eight ounces of blood from him, according to his size and strength.

CHAP. XVI.

DISEASES OF THE EYES OF DOGS.

WE shall first treat of *simple inflammation of the eyes*, that does not proceed in consequence of the distemper, but arises from scratches, thorns, or any external injury, or from some external cause. The eyes when examined appear red and tears flow from them, and the eyelids are partly closed to avoid the stimulus of light; the coloured or transparent part of the eyes (called cornea) frequently becomes opaque, and of a slate colour; this is owing to an effusion of lymph, that the severity of the inflammation has given rise to. In some instances a small abscess forms, which ends in an ulcer, but this is not often the case in simple inflammation of these organs.

If remedies are had recourse to at the commencement, when the eyes are not much affected, the following lotion, and a physicking ball, is often all that is required. In more severe cases, it will be necessary to bleed, and if he be a middling sized dog and well fed, take from four to six ounces of blood from him; and having done this, you should then introduce a seton in the neck, or

pass a skein of thread through the flap of the ear, and administer the physicking ball (No. 1, p. 304) twice a week.

The eyes at the commencement of the inflammation must be bathed two or three times a day, with the following lotion previously made tepid. It will be proper to keep the wet rag, that you bathe the eyes with, on the eyes for the space of five or ten minutes.

(RECIPE, No. 40.)

Lotion for inflamed Eyes.

TAKE—Goulard, half an ounce;
Spirits of wine, two drachms;
Rose water, four ounces:
Mix and shake when used.

After this lotion has been used tepid for three or four days, it will be proper then to begin to apply it cold to the eyes, and to increase its strength by adding four to six grains of *sugar of lead* to it. If any extraneous body be suspected under the eyelids, you should inspect the eyes, and, in case there is, remove it if possible.

The dog, in simple inflammation of the eyes, should be confined in a shady place, neither exposed to the stimulus of light, nor the heat of the fire;

and he should not be exercised till his eyes are better. If these precautions are not attended to, the symptoms will be aggravated, and a speck or opacity will be more liable to take place.

If the inflammation should leave a speck or opacity of the cornea, it may be removed by blowing gently a little of the following powders, through a quill, upon the effected part once or twice a day.

(RECIPE, No. 41.)

TAKE—Sal ammoniac, two scruples;

Tutty, two scruples;

Calomel, one scruple:

Powder the sal ammoniac and tutty, and pass them through a fine sieve, then mix all together, and keep in a bottle for use.

There are diseased affections of the interior parts of the eyes. One of these diseases consists in an opacity of the crystalline humour, which deprives the dog of sight. The other is owing to an augmented growth of the internal humour, which increases very much the ball of the eye, and looks very conspicuous; there is also in these instances an opacity of the cornea. Both these affections of the eyes are incurable.

Inflammation of the Eyes from Distemper.—
The eyes are always, in general, more or less in-

flamed in distemper. Occasionally this inflammation prevails more than common; the coloured, or transparent part of the eyes is opaque, and of a slate colour, and not unfrequently the inflammation is accompanied with slight ulceration, and in some few instances a sponge-like excrescence forms on the ball of the eye. Sometimes this ulceration of the transparent part of the eyes extends and threatens the destruction of sight. It is matter of importance to observe, that when the eyes are thus affected, it altogether depends upon the presence of distemper, and when the dog recovers of that disease the eyes will in course return to their former healthy state again.

It very seldom happens that affections of the eyes, in distemper, require any particular attention more than what is requisite for that disease in general. However, in case the inflammation be severe, and attended with ulceration, it will be then adviseable to introduce a seton in the neck, and to bathe the eyes with the lotion (No. 40, p. 349) once or twice a day.

Ulceration of the Eyelids of Dogs.—This affection of the eyelids occasionally occurs, and may be cured by giving a physicking ball or two, and applying the following ointment.

TAKE—Red precipitate, in very fine powder, two scruples;
Spermaceti ointment, half an ounce.

This ointment should be applied to the affected eyelids morning and evening, by means of a camel-hair pencil. If it does not readily yield to this treatment, insert a seton, and give the alterative ball (No. 35, p. 341).

Mode of inserting a Seton.—The mode of inserting a seton, is to pass a skein of silk or cotton, about six inches long, through the eye of a full sized seton needle,* and besmear it well with common blistering salve. Having thus prepared the instrument, let an assistant pucker up the skin of the neck longitudinally, with the thumb and fingers of each hand, and then force the needle through the puckered skin, in the space between the assistant's hands; the opening in the skin should be an inch and a half, or two inches, apart: the ends of the skein should be tied when introduced. The seton should be moved about a little every day to and through the wound to irritate the parts, and increase the discharge.

* These may be procured at the Surgeons' Instrument-Makers.

CHAP. XVII.

TICKS.

DOGS, like other animals, are subject to be infested with vermin : that kind which dogs are liable to, are called ticks : these sometimes abound in great numbers, and prove very annoying. The following wash will be found effectual in getting rid of them, but great attention to cleanliness will be required to prevent their reproduction.

(RECIPE, No. 42.)

Wash for Ticks.

TAKE—Water, two pints;
Spirits of wine, one ounce;
Sublimate, one drachm and a half:
Dissolve the sublimate in the spirits of wine;
and then add the water. It must be used
morning and evening, and his hair should
be parted, that it may penetrate the skin.

CHAP. XVIII.

CANKER IN THE INSIDE OF THE EAR.

THIS term is applied to a peculiar inflammatory affection in the inside of the ear, and is more frequently met with amongst such dogs as are highly fed, and are particularly fond of the water, as the Newfoundland breed and others. It is first discovered by the dog frequently shaking his head, and scratching his ear, and he is often observed to hold his head on one side, that side the ear is affected. On examining the inside of the ear, it looks red and scurfy; and if the disorder has continued any time, there is a yellowish viscid discharge from the parts; and it not unfrequently occurs in its advanced stage, that the eyes become similarly affected. In some instances, likewise, the dog's coat stares, and his skin is rough. Sometimes, when the disease is neglected, or injudiciously treated, the inflammation extends to the organ of hearing, and causes deafness.

It is noticed that, in dogs affected with canker in the ear, the disease almost, nay often entirely, disappears during the sporting season, when they are most exercised. When the dogs come again

to be confined, and well fed, the disease most frequently returns as bad as ever.

Experience teaches us, that dogs fed much on flesh are more liable to this disease than others, and that the most common exciting cause of it is wet, which seems to act by slowly abstracting heat from these parts, while they are in a state of excitement, or increased action. This exposure to wet, frequently occurring in water dogs, is apt to produce canker in the ear by injuring the vessels of these parts, by which they become relaxed, and consequently distended with more blood, and the functions of the nerves of the part are also injured, and thus the blood is specifically acted upon by the nerves.

When setters, water spaniels, &c. go into the water, the inside of their ears retain a great deal of moisture, and are a long time in drying. This slow evaporation from the ears diminishes the temperature of these parts very much, and it is by the sudden transitions from heat to cold, that the complaint is produced.

This disease, though of long standing, may be easily cured, if attention be paid to diet, exercise and the use of proper remedies. We know that dogs during the sporting season must have a

liberal allowance of animal food to support their vigour; but this subjects them to several complaints. After the season is over, the quantity of animal food should be diminished, and that of vegetables increased; and they should have regular exercise, and be physicked, and then they will by no means be so liable to this disease. In most cases, the following mercurial oil will effect a cure, without other remedies being resorted to; but it is generally better to physic the dog once or twice, and it will also be right to observe the necessary precautions as to *diet* and *exercise*.

(RECIPE, No. 43.)

Mercurial Oil.

TAKE—Olive oil, one ounce;
Calomel, one drachm and a half:
Mix, and shake when used.

This oil should be rubbed on the affected part morning and evening, for the space of five minutes. In some obstinate cases, and especially when the eyes are also affected, a seton in the neck will be proper, and the alterative ball (No. 35, p. 341) should also be administered every day.

CHAP. XIX.

CANKER ON THE OUTSIDE OF THE EAR.

THIS affection of the ear is more frequent than the former, and mostly attacks only *pointers* and *hounds*. It commences with a crack at the tip, or lower edge of the ear, and the affected part is covered with dry scales. This crack or ulceration of the ear is accompanied with some degree of surrounding swelling : and the part is painful when touched, and is attended with much itching, which causes the dog to keep frequently shaking his head.

This disease, there is but little doubt, is of the same nature with *canker* in the *ear* ; and the most probable reason that setters, water spaniels, and Newfoundland dogs, are not affected with *canker* on the *outside* of the *ear*, is because these parts in them are more defended by hair ; and hence they are not so susceptible of those frequent transitions from heat to cold, which prove the exciting cause of complaint.

In the treatment of this disease, attention should be paid to *feeding* and *exercise*, which you will find noticed in the last section. The following

styptic tincture will be found very efficacious in curing *canker* on the *outside* of the *ear*, but sometimes it will be requisite, in order to expedite the cure, to physic the dog once or twice.

(RECIPE, No. 44.)

Styptic Tincture.

TAKE—Egyptiacum, one ounce ;
Oil of vitriol, two drachms ;
Nitrous acid, two drachms ;
Spirits of turpentine, one ounce ;
Rectified spirits of wine, two ounces :
Mix the egyptiacum with a little of the spirits of wine ; then gradually add the oil of vitriol ; having done this, add, by degrees, the nitrous acid, and the remainder of the spirit of wine. Keep stirring them with a stick or glass rod while you are mixing them or they will inflame.

In some obstinate cases it will sometimes be proper to add half an ounce of *butter* of *antimony* to one ounce and a half of the styptic tincture.

In some few instances the *flap* of ther *ear* swells without any previous ulceration. When this occurs, make a pretty free opening with a lancet or penknife, to discharge the contained humour, and then dress the wound with a dossil of lint dipped in the styptic tincture.

Canker or Ulceration of the Toes of Dogs.—

The toes, in this affection, are swelled and painful, and attended with some degree of ulceration. In these cases apply the following twice a day.

TAKE—Styptic tincture, one ounce;

Compound tincture of myrrh, one ounce:

Mix.

CHAP. XX.

WOUNDS.

THE wounds which dogs are principally subject to, are the *incised*, or those which are occasioned by some sharp cutting instrument; and the *lacerated*, or such as are occasioned by parts being violently torn asunder.

Treatment of incised Wounds.—The first object required, is to put a stop to the bleeding, which may generally be done by pressing a dossil of lint on the wound, for the space of five minutes. If the bleeding does not stop in this time, have recourse to the styptic tincture (No. 44, p. 358), and apply pressure again. Having stopped the bleeding, the next thing to be done, if the wound be extensive, will be to bring the edges of the wound

together, to prevent nature from having so large a cavity to fill up; and this on account of the mobility of parts, should be done by making a suture or two with a needle and thread, which will bring the sides of the wounds in contact; and this should be further assisted by some straps of adhesive plaister, leaving a space between each to allow the escape of any matter that may be secreted. The straps of adhesive plaister have no occasion to be removed until matter forms, and then they may be taken off, and the wound may now be dressed every day with the following oils, and fresh slips of adhesive plaister must also be applied. In more slight wounds, and sometimes in very extensive ones, the following oils for wounds are alone resorted to, and prove very efficacious in curing them.

Treatment of lacerated Wounds.—The treatment will be similar to the incised wound, except that in the lacerated it will be proper to wash the wound very clean with warm water, and if a splinter, or any extraneous body, be in the wound, it must be removed.

(RECIPE, No. 45.)

Oils for Wounds in Dogs.

TAKE—Barbadoes tar, half an ounce;
Strained turpentine, one ounce;
Oil of turpentine, two ounces;
Linseed oil, three ounces: unite these by a
gentle heat, and when cool, add
Compound tincture of myrrh, one ounce:
Mix, and shake the bottle when used.

Sometimes wounds about the joints and foot are difficult to heal; in these cases apply the *styptic tincture* (No. 44, p. 358). If this does not succeed in healing the wound, make a free incision, and expose the wound to the bottom, and then dress it with the oils for wounds, every day, or twice a day.

Wounds from the Bites of Mad Dogs.—First wash the wound clean with warm water, and then have recourse to the actual cautery, or apply lunar caustic over the whole surface of the wound.

CHAP. XXI.

OF FRACTURES.

THE existence of fractures in dogs is generally easily ascertained by the alteration of shape which the limb undergoes, and by the motion of the fractured leg being much impaired. Fractures will require some attention that the bones may unite even, and no deformity in the limb take place, which will readily be accomplished, if the following directions be adhered to.

Fracture of the Thigh Bone.—When the thigh bone is broken, the first thing to be done will be to procure one or two splints of deal wood, of sufficient length to reach from one joint of the thigh to the other, and rather longer. You must also spread some adhesive plaister on as much leather as will cover the whole outside of the thigh, and part of the inside likewise. Having thus prepared things, you should melt some adhesive plaister in a gallipot, or any suitable vessel, and when melted, and not too warm, spread some with a case knife on the outside of the broken thigh, where the splints are to be placed, and an assistant should immediately after apply the splints,

and then the leather plaister, previously made warm. A cotton roller should be carried regularly around the limb over these, but it should not be applied too tightly, in order that room may remain for tension or swelling, which always comes on soon after the accident; if this is not attended to, mortification of the part may be the consequence.

Fracture of the fore or hind Legs.—In case the fore or hind legs are broken, they will require exactly the same treatment as when the thigh bone is broken, except that in these fractures three or four small splints will be requisite, and these must be applied around the limb.

If the fractured legs of dogs are not properly set, and the ends of the bone not kept directly in apposition, it not unfrequently occurs that a substance, similar to gristle, of an elastic nature, will form the union between the bones.

When this is the case, pass a seton through the gristly part, and let it remain for eight or ten days, and then withdraw it, and apply splints, &c. again as just directed for fractures, and the dog may in these instances be permitted to walk now and then in this state.

CHAP. XXII.

ON MADNESS.

OF all the maladies to which dogs are subject, none is more terrible in its nature than madness ; but fortunately this disease is of very rare occurrence. The symptoms which attend madness vary very much in different dogs, and greatly depend upon the part or parts of the body, which are more particularly affected ; and also on the age of the dog, the kind, and other contingent circumstances. No precise time can be stated when this disease may make its appearance, after the poison has been received ; but generally some visible alteration is observable in the animal, about three weeks after the bite, though in some few instances it is considerably longer than this, while in others its effects are observed in the course of a week after.

I shall now mention the most general symptoms which accompany madness. A dog, in the commencement of this disease, is observed to be much less sportive and playsome than usual ; and though he knows his master, and generally obeys his call, he nevertheless does not fawn on him as he is

accustomed to do. Some dogs, while in this state, pick up straws, or any thing from the ground; and especially if it be small; sometimes they keep constantly licking the nose and other parts of dogs, and particularly if they be very cold; also stones, iron, or other cold substances. Not unfrequently in the beginning of the complaint, it is attended with much irritability, and particularly so in young dogs, which manifests itself by the affected animal showing the highest dislike to dogs, and particularly to cats, which he will snap at, and bite if they come in his way: should he in this state be provoked with a stick, or any thing, he will eagerly seize and shake it with great violence. Sometimes the part bitten is painful, and the dog is observed to keep constantly nibbling it. One of the most frequent symptoms of this disease is a loss of appetite; and if food be offered to the dog, he will perhaps eat some, but it is with seeming reluctance. The dog's appetite is very often depraved, and then he will devour his own excrement, urine, or any trash he may meet with. The dog is mostly thirsty from the fever present, and will often keep lapping water, though sometimes he cannot swallow it; and in some cases it excites a painful convulsive motion of the muscles of the throat, and it is then that the dog refuses water altogether. He is also often sick at the stomach,

and his bowels are generally very constipated throughout the disease. These are the peculiar symptoms which first announce the disease, which are of importance to observe, as the dog ought to be chained in this stage of the disorder.

When the poison affects the system more powerfully, which is commonly the case in a day or two after the symptoms just mentioned have appeared, the dog not unfrequently becomes fierce and furious, and snarls at every one. Now he is very restless, leaves home, and runs along, sometimes with great speed, and only turns from his course to bite other dogs, sheep, or cattle; very rarely man. Sometimes the dog's eyes shine, and at others look very dull; they are generally also inflamed. His ears are lowering, and the tail is drawn inwards between his legs; the tongue hangs out, and is covered with saliva. Sometimes he draws himself up as though troubled with pain in the bowels; and at other times he sits; his hind parts likewise frequently fail him. The dog never barks, but makes a peculiar sad howl, not much unlike that of the *slow hound*. Sometimes the dog refuses to lap water, sometimes he eagerly seeks it.

It often happens that the dog shows no inclina-

tion to bite, but appears rather dull and stupid, and sometimes wonderfully so, and remains obedient to his master's call to the last moment of his life; his eyes also look heavy, and his vision is often impaired, which evinces itself by the dog snapping at imaginary objects.

When the disease draws to a fatal termination, the system becomes exhausted by the previous morbid excitement; the dog's legs are unable to support the body, and he dies oppressed with an accumulation of evils.

Madness has been said to destroy dogs always, but that this is not always the case I am fully satisfied from my own observation. A friend of mine had a dog bitten by a mad dog, and he consulted me about him, and I begged that he would use no precautions against the disease, as I told him I wished to watch particularly the progress of the malady. He obligingly acceded to my request, and kept the dog confined. Symptoms of madness began to be apparent in rather more than a week, and as the disease advanced, the dog became furious, and continued so for two days, and then the disorder left the animal very much exhausted. This dog began to recover on the seventh

day, and was completely well in a fortnight from the commencement of the disease.

When madness proves fatal, death no doubt proceeds from the powers of the system being broken from the peculiar morbid excitement induced by the poison.

The morbid appearances, on examination after death, vary in different dogs, as do the symptoms, while living. At the back part of the mouth there is a muscular pouch, denominated *pharynx*; this is always more or less inflamed in madness, and sometimes so inflamed as to appear as red as scarlet; the inflammation often extends some way down the gullet; the superior part of the windpipe is also usually inflamed: inflamed spots are observed in the stomach, and there is generally also a heap of undigested trash found in the stomach. The bowels are variously inflamed from one end to the other. The membranes, which surround the brain, or the brain itself, are always observed to be inflamed.

We shall offer a few remarks concerning the nature of madness in dogs. The various and complicated actions of the body constituting life, are subject to fixed and determinate laws; these

actions are no doubt greatly regulated by the brain and nervous system, and we suppose the whole circulating mass of blood to be in a passive state, and the source of its action to be derived from the brain and nervous system. When an animal is bitten by a mad dog, the poison received accumulates by an action *sui generis*, and the brain and nervous system at length participates in it, which subverts the salutary actions of these parts, and institutes one incompatible with life. We therefore are led to conclude, that madness consists in a peculiar and specific action of the system, and on this supposition we draw our indications of cure.

The altered manners of the animal at the beginning of the complaint are to be ascribed to the functions of the brain and nervous system being impaired from the influence of the poison. As the disease advances, many dogs, as we have before mentioned, become wonderfully heavy, dull, and stupid, with an anxious and suspicious look; the eyes are heavy, and indicate a malignant state of the mind; vision is also affected, and the dog catches at imaginary objects; the jaw-bone drops, the tongue hangs out, and the dog has lost the power of barking or howling: these symptoms are not only the effects of the poison on the brain, but

are also to be attributed to its producing a peculiar inflammatory state of the substance of the brain, which augments its bulk, and consequently some degree of compression follows. The membranes of the brain are found more particularly affected with inflammation, as are also the lungs, in cases where dogs have been very irritable, fierce, and furious, and have made a peculiar howling noise, and been inclined to leave home, and bite other dogs. The stomach, from the functions of the nerves being deranged, has lost the power of digesting food; and other important organs of the body are as much disordered. Most of the internal parts, as we have before noticed, are found in a state of inflammation, and the temperature of these parts is augmented from the increased reaction of the constituent parts of the blood caused by the morbid excitement of the nerves acting upon that blood. The thirst seems to arise from the increased heat of the internal parts of the body, and from a defect of the secretions of the mouth, as well as from the peculiar state of the system. When the intestines are found much inflamed, the hind parts have been observed to be very weak, and I suspect the spinal marrow in these cases to be also affected.

The most certain precaution against madness in

dogs, is to cut out the part bitten, if it can be done; if not, apply the actual cautery or lunar caustic to it. It often occurs that the part or parts which were bitten cannot be discovered: in these instances we have recourse to *Fowler's Arsenical Solution*. Ten to fourteen drops of this solution must be given to a middling-sized dog twice a day in milk, or in any thing the dog eats, and should be continued for two or three weeks, if the stomach can bear it. You should commence with these drops after the operation of the following ball.

(RECIPE, No. 46.)

TAKE—Turbith mineral, three grains;
Barbadoes aloes, one drachm:
Make into a ball with syrup or conserve.

When the symptoms of madness become apparent, the most likely means of preventing a fatal termination is *repeated bleeding, and the arsenical solution administered to the extent of forty drops twice, or even three times a day*; but generally the disease surmounts the power of all remedies that have hitherto been tried.

Worm under the Tongue.—Canine madness was formerly attributed, as indeed it is now by some

persons, to what is very improperly called a worm under the tongue, which is merely a ligament, or production of the skin to prevent the tongue from going back into the throat and choking the animal. Those who entertain the false notion of the existence of a worm under the tongue, remove it as a precautionary measure against the disease; but without any effect, except giving the poor animal unnecessary pain.

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